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ATLANTIC WIRE COMPANY

BRANFORD, CONNECTICUT

RCRA RECCIDS CENTER
FACILITY AT LEWISE
I.D. NO. CTOOLIGHT KE
FILE LOC. R-113
OTHER

HAZARDOUS WASTE DELISTING PETITION DOCUMENTATION

20 AUGUST 1985



Camp and Associates Inc.

CONSULTING ENGINEERS

ATLANTA, GA. BARRINGTON, R.I. PLAINVIEW, N.Y.

CAMP AND ASSOCIATES, INC.



CONSULTING ENGINEERS

120 COPELAND RD. ATLANTA, GEORGIA 30342

TEL. (404) 252-1252

205-04 March 18, 1986

Mr. Girard Sotolongo
United States Environmental Protection Agency
Region I
Waste Management Division
Room 1903
John F. Kennedy Federal Building
Boston, MA 02203

SUBJECT: Atlantic Wire Company, Branford, CT

EPA I.D. No. CT001161181; Delisting Petition No. 0189

Dear Mr. Sotolongo:

Per our conversation on March 17, 1986, enclosed are copies of various letters and documents dealing with the subject. This data should assist you in understanding the history of Atlantic Wire Company's delisting petition.

As I mentioned, Atlantic Wire Company received the Registered letter from EPA regarding the temporary exclusions on March 17, 1986, and my contact with your group was in accordance with the final paragraph of the letter.

Please call me when you have had the opportunity to review this package of information. As we discussed, my client is continuing to operate using existing disposal practices pending your instructions to the contrary.

If you have any questions, or require any additional information, please call me.

Very truly yours,

William W. Camp, P.E.

President

WWC/gmh Enclosure

cc: R. Lawlor

P. Curcurato

J. Roussat

R. Wilson

CAMP AND ASSOCIATES, INC.



120 COPELAND RD. ATLANTA, GEORGIA 30342

TEL. (404) 252-1252

205-04

August 16, 1985

Mr. Scott J. Maid Environmental Protection Specialist Waste Identification Branch (WH-562B) Office of Solid Waste and Emergency Response United States Environmental Protection Agency Washington, D.C. 20460

SUBJECT: Atlantic Wire Company

Delisting Petition No. 0189

Gentlemen:

This letter is a final response to your letter of 19 February 1985 to Atlantic Wire Company.

You will recall that an interim response was prepared by the undersigned on 22 March 1985. At that time, I explained that the data requested required contact with chemical suppliers and collection and analysis of sludge samples. The assembly of the required information took longer than anticipated and we apoligize for the delay.

ATTACHMENT I to your letter of 19 February 1985, contained six major paragraphs requesting various information and data. This letter and attachments will respond to each of the paragraphs in the order listed.

PARAGRAPH 1- "A detailed description of waste management practices, etc..."

<u>RESPONSE:</u> The overall waste water system is as described in my letter dated 20 November 1981 to William G. Sproat, Jr. A copy of that letter is included as Attachment A. With regard to this attachment, it should be noted that;

- 1) Trichloroethlene is no longer used by Atlantic Wire Co.
- 2) The current monthly volume of sludge removed from the storage tank and transported to the city lagoons is approximately 150,000 gallons @ 3% +/- solids

As indicated above, the sludge is currently transported by tank truck to the City of Branford holding lagoon. The sludge has always been deposited in this same lagoon, ever since the Atlantic Wire Company's initial system was installed in 1968.

The proposed modifications to the treatment portion of the Atlantic Wire Company facility were approved by the Connecticut D.E.P.. Installation of the modifications was completed in early 1984. Pertinent excerpts from the Wastewater System Operations and Maintenance Manual are included as Attachment B.

<u>PARAGRAPGH 2-</u> "A discussion explaining why hazardous constituents (as listed in Appendix VIII) are not expected to be present, etc..."

- "TOC Samples"
- "Material SAFETY Data Sheets"
- "Oil and Hydraulic fluids"

<u>RESPONSE:</u> The Atlantic Wire Company's petitioned waste is not expected to contain hazardous constituents as listed in Appendix VIII since none of these materials are used and/or are allowed to enter the wastewater system.

As requested, four representative samples of the petitioned waste were analyzed for TOC. Samples were collected on 11 April 1985, 25 April 1985, 9 May 1985, and 25 June 1985. The samples were collected by and analyzed by Aqualogic, Inc., New Haven, CT. The sample results are included herein as Attachment C.

In response to you request for Material Safety Data Sheets for the raw materials which were listed in Mr. Wilson's letter of 23 February 1984 to M.E. Morse, Attachment D contains copies of data sheets which were supplied to Atlantic Wire Company by their various raw materials suppliers. Please note that this attachment includes some suppliers cover letters which indicate that their material is confidential.

In response to your request for identification of sources and types of oils and hydraulic fluids which may enter the waste treatment system, Atlantic Wire Comapny purchases standard motor oil, 90 weight gear oil, and standard hydraulic brake fluid. The potential exists for mobile equipment drips and leaks of motor oil, gear oil, and brake fluid, however, it is unlikely that these materials would enter the waste system. In each of the two cleaning houses, there are cranes which use brake fluid and/or gear oil which would enter the waste system should a substantial leak occur. It should be noted that since the present management has been in place (1980), there has never been a significant spill of oil or brake fluid which has entered the waste system, nor has there been a sufficient quantity in the treatment facility to produce a visible sheen.

<u>PARAGRAPH</u> 3- "Data indicating that the sludge does not exhibit the characteristics of ignitability, reactivity, or corrosivity as outlined in Subpart C 261.21-.23, etc..."

<u>RESPONSE:</u> Tests and evaluations of the sludge material were made by Aqualogic, Inc. Their report relative to the evaluation of ignitability, reactivity, and corrosivity as outlined in Subpart C 261.21 -23 is included as Attachment E.

PARAGRAPH 4- "Results of three additional EP toxicity tests, etc..."

<u>RESPONSE</u>: As requested, three additional samples were collected and subjected to EP toxicity tests for chromium and nickel. The samples were collected on 11 April 1985, 25 April 1985, and 9 May 1985. The samples were collected by and analyzed by Aqualogic, Inc. The EP toxicity results are included as Attachment F. Attachment E contains the requested information regarding the sample collection procedures, collection dates and analysis dates.

With regard to the sampling procedure for the sludge sample referenced in our submittal of 22 June 1985, the sample was taken during one of the periodic sludge removal operations. After a short period of time during the removal, a standard plastic sample container, which had been flushed with distilled water, was filled and capped. The sample was then transported to the laboratory where it was stored at 70 degrees F+/- in the sample room until the analytical work was done the next day.

<u>PARAGRAPH 5 - "A total constituent analysis for chromium, nickel and cyanide on an additional sludge sample.</u>

<u>RESPONSE:</u> As requested, a total constituent analysis for chromium, nickel and cyanide was performed on a sludge sample. The sample was collected and analyzed by Aqualogic, Inc. on 30 April 1985. The results of the analysis are presented in Attachment G.

<u>PARAGRAPGH</u> 6 -" A statement indicating whether the facility is currently facing any enforcement action, etc..."

<u>RESPONSE:</u> Atlantic Wire Comapny is not currently facing any enforcement action and to the best of our knowledge, none is contemplated by any regulating authority.

We believe that the information contained in this letter and attachments is fully responsive to your request for information. If you have any questions, or require any additional information, please call me, or Mr. Robert Wilson at Atlantic Wire Company.

Very truly yours,

William W. Camp, P.E.

President

WWC/sc

cc: R. Lawlor

A. Sidney

J. Roussat

R. Wilson

ATTACHMENT A

CAMP AND ASSOCIATES, INC.



CONSULTING ENGINEERS

SUITE 243 120 COPELAND RD. ATLANTA. GEORGIA 30342

TEL. (404) 252-1252

November 20, 1981

William G. Sproat, Jr.
Waste Characterization Branch
Hazardous and Industrial Waste Division
Office of Solid Waste
United States Environmental Protection Agency
Washington, DC 20460

SUBJECT: Atlantic Wire Company

Delisting of Wastewater Sludge

Dear Mr. Sproat:

In response to your letter of 24 September 1981, to Mr. Al Ryon of Atlantic Wire Company, the following responses are offered. The numbers in this letter correspond to the numbers in your letter:

- There are no electroplating operations at Atlantic Wire Company. Traces of Cadmium, Chrome, Nickel are present from raw materials and cleaning agents. There is no Cyanide from any operation.
- A representative sludge sample was analysed as requested. See attached report from York Wastewater Consultants, Inc. for analytical results.
- 3. Enclosed are several pages from the Concept Engineering Report prepared by Camp and Associates Inc. as well as a Schematic Flow Diagram for the proposed facility. The improvements shown have not as yet been implemented. We are awaiting final approval from Connecticut D.E.P.
- 4. The F001 solvent is trichloroethlene. The spent solvent is picked up by the supplier at the time replacement solvent is delivered. Consequently, Atlantic Wire Company does not dispose of this material.

William G. Sproat, Jr. Waste Characterization Branch USEPA Page Two

5. The average monthly volume as expressed in the RCRA Permit Application is 10,000 gallons/month. The normal solids content in the sludge is 13-14% by weight.

If you have any questions, or desire any additional information, please call me or ${\rm Mr.}\ {\rm Ryon.}$

Very truly yours,

William W. Camp, P.E. President

WWC/mp Enclosure

cc: R. Lawlor

J. Walker

A. Ryon



October 23, 1981

01-3082-213 CAMP & ASSOCIATES Suite 100 6075 Roswell Road Atlanta, Georgia 30328

Attention: William Camp

PURPOSE AND RESULTS

One sludge sample from the Atlantic Wire Company, Branford, CT was submitted to the Analytical Laboratory Division of York Wastewater Consultants, Inc. for determination of total cadmium, chromium, nickel and cyanide. The sample was also analyzed for leachable nickel according to the Resource Conservations and Recovery Act, (RCRA), Federal Register, Vol. 45, No. 98, May 19, 1980.

The results are as follows:

Total Cadmium (dry basis)	<1.25 ug/g	1,0
Total Chromium (dry basis)	1,140 ug/g	5.0
Total Nickel (dry basis)	190 ug/g	
Total Cyanide (dry basis)	, <0.05 ug/g	
Leachable Nickel (RCRA)	0.33 mg/1	

Prepared by: Famul F. Ott Daniel F. Ott Senior Chemist

Description of Pollution Control Facilities

The pollution control facilities at Atlantic Wire Company basically consists of an acid recovery unit for the spent sulfuric acid pickle liquor and a neutralization clarification system for contaminated process water treatment.

The acid recovery unit includes three compartments; crystalizer, crystal drainage tank and recovered acid tank. The crystallizer receives the hot spent sulfuric acid which is pumped from the pickling tanks. Through gradual cooling of the liquor to approximately 60°F. using city water, ferrous sulfate crystals (ferrous sulfate heptahydrate) are formed. The slurry is then discharged into the crystal drainage tank where the recovered acid drains into the recovered acid tank and the crystals are retained. The crystals are subsequently washed with fresh water and conveyed to storage. The recovered acid is supplemented with fresh sulfuric acid and is recycled to the pickling tanks. The ferrous sulfate crystals are currently being hauled for recovery by the Reirchard-Coulston Company of Pennsylvania. The material is transported by Singues Trucking of New Haven. Additional discussion regarding the disposal of ferrous sulfate as well as other waste chemicals may be found in a subsequent section entitled ("Solid/Hazardous/Toxic Waste Disposal"

The neutralization-clarification system is used to treat the contaminated process waters from various areas in the plant. The contaminated water collection system is conveyed to a neutralization tank located within the treatment facility at the west end of the plant, drawing B-8 Liquid caustic soda is added to the incoming wastewater proportional to flow. Caustic addition is automatically controlled in order to achieve a pH of approximately 9.2 ± 0.5 . The neutralized waste is then pumped by two, level controlled,

vertical turbine pumps to the flocculation chamber adjacent to the Lamella clarifier. At this point, anionic polymer (Betz #1100) is added for the purpose of promoting a settleable floc. The waste then flows by gravity into the Lamella clarifier. Sludge is discharged into the sludge holding tank directly below the clarifier. The overflow from the clarifier is discharged into the effluent sump where it mixes with the non contaminated cooling water and flows by gravity to the Branford River.

Sludge is periodically removed from the holding tank and hauled to a lagoon system at the City of Branford's municipal wastewater treatment plant. The waste sludge is hauled to the city owned and operated lagoons by the Atlantic Trucking Company of Branford, CT.

Water Usage/Flow Balance

The data obtained and presented in Figure_2 and Tables 1, 2, and 3 was analyzed to provide a plant and system water balance. As can be seen from the following summary, a reasonable flow balance has been achieved based on current conditions.

FLOW BALANCE SUMMARY (From Table 1, 2, 3, and Figure 2)

ITEM	GALLONS PER DAY
Non Contaminated Water Usage	119,000
Contaminated Water Usage	124,000
Sanitary Usage	6,000
Total	249,000
Total Average Daily Water Demand	278,000
Total Variance	29,000

The flow variance of 29,000 GPD is attributed to miscellaneous leaks, spills, and flow continuing to operating equipment during non-operating time periods. In the development of the Design Basis, this quantity has been attributed to miscellaneous sources and was allocated on the basis of; 15,000 GPD - contaminated, and 14,000 GPD - non contaminated.

Sampling and Analysis Program

Based upon the field studies and investigations and the evaluation of the facilities; a sampling and analysis program was established to provide data relative to the following:

- Characteristics of various flows currently discharged into the non contaminated system.
- Characteristics of selected streams currently discharged into the contaminated wastewater system.
- Characteristics of storm water flow.
- Characteristics of waste discharged into the sanitary system.
- Effectiveness and efficiency of the existing treatment system.
- Characteristics of the sludge being hauled to the municipal lagoon.

Results of the sampling program are presented in Table 7. A detailed review of this data results in the following observations relative to the systems:

- Contaminated waste are not being discharged into the sanitary sewer system.
- 2. The storm sewer system contains significant quantities of residual contaminants which must be removed. Additionally, Department 139 trench overflow must be removed from the storm sewer system.
- 3. The <u>Tinning Frame rinse water discharges do not possess significant</u> contaminants and should be discharged into the non contaminated water system.

TABLE 7

ATLANTIC WIRE COMPANY

SAMPLING PROGRAM DATA

NO.	LOCATION	рН	mg/1 TSS	mg/l TOC	mg/1 Cr	mg/1 Cu	mg/1 Fe	mg/1 Ni	mg/1 Sn	mg/1 Zn	mg/1 <u>0&G</u>
1.	Lamella Unit Influent	8.8	15.6		0.008	0.016	0.394	0.05	<0.5	<0.004	
2.	Sludge Tank Supernatant	0.77	<1.0	•	0.004	0.082	1.04	0.038	<0.5	0.09	
3.	Sludge	8.8	13,596		414µg/g	6050µg/g	39,196μg/g	214µg/g	2609µg/g	26,306µ	g/g
4.	Treatment Plant Influent	1.0	45.0	0.68	0.68	3.6	594	0,436	7.76	2.5	
5.	Stormwater 8" 11ne 37972,37973,37974					٠	0.082				
6.	Stormwater 10" line	6.4 3.4	32.6 4.7	20	0.02	0.116	44.0 92.0	0.028	<0.5	0.194	9.0
7.	Stormwater 12" line	2.8	139.2	13			276				4.3
8.	Reservoir #2	7.1	40.1		<0.002	0.016	0.164	0.016	<0.5	0.089	
9.	Reservoir #1	6.4	1.5		<0.002	0.188	0.516	0.008	<0.5	0.079	
10.	614 Tinning Frame Rinse	7.2					0.352		0.5		
11.	HIC Cooling Water	6.7	8.1				0.302				
12.	Lavite Drains	11.6	16.7				1.82	0 .	· ,		
13.	Floor Drain System North of Tinning Frame Area	6.8	2.4				0.36				
14a.	621 Tinning Frame Rinse Discharge	6.3					0.214		<0.5		

.

TABLE 7 (continued)

NO.	LOCATION	рН	mg/1 n TSS	ng/1 mg/1 TOC Cr	mg/1 	mg/1 n	ng/1 mg/1 Ni Sn		ng/1 O&G
14b.	Jewelry Wire Rinse	6.9	;			0.802	<0.5		
15.	137 Wet Wire Drainage Trench	7.6	1,235.7		20.0	32.0		2.0	
16.	Dept. 139-Wet Wire Drawing Trench Overflow	7.4	1,299	**		56.5		1.045	
17.	Dept. 136-Wet Wire Drawing Equipment	6.6	98.0			0.784		0.074	519.48
18.	Boiler Blowdown	10.9	133.3						

- 4. The treatment system provides very effective removal of contaminants.
- 5. Results from the sludge sample indicate that the overflow from the sludge storage tank can potentially contain contaminants and should be discharged to the influent sump in lieu of the effluent sump.
- 6. Contaminant levels in the non contaminated water system indicate that contaminated wastes are not entering the system.

Wastewater Quantities and Characteristics

Summarizing the data obtained in the study and presented in the preceeding sections of this report, Table 8 presents a tabulation of the waste streams from all sources throughout the plant which requires treatment in the treatment facility. Based upon the results of the Sampling program it has been determined that the Tinning Frame rinse waters should not be included in the contaminated stream.

In order to insure that all the sources listed in Table 8 receive treatment, the following alterations and modifications to the system will be required:

- A system for the collection and meter feeding of batch dumps will be required.
- 2. The boiler blowdown must be re-routed to the contaminated water system.
- 3. Overflows and drains from the Tinning Frames concentrated waste process tanks must be routed to the contaminated water system.
- 4. Non-contaminated flows to the wastewater system must be eliminated to minimize flow to the treatment system and maximize the efficiency of operation.
- 5. The washing system for the ferric sulfate crystals (currently inoperable) must be routed to the contaminated waste system. Rinse flows for the scrubber system should be routed to the acid recovery system.

TABLE 8

ATLANTIC WIRE COMPANY

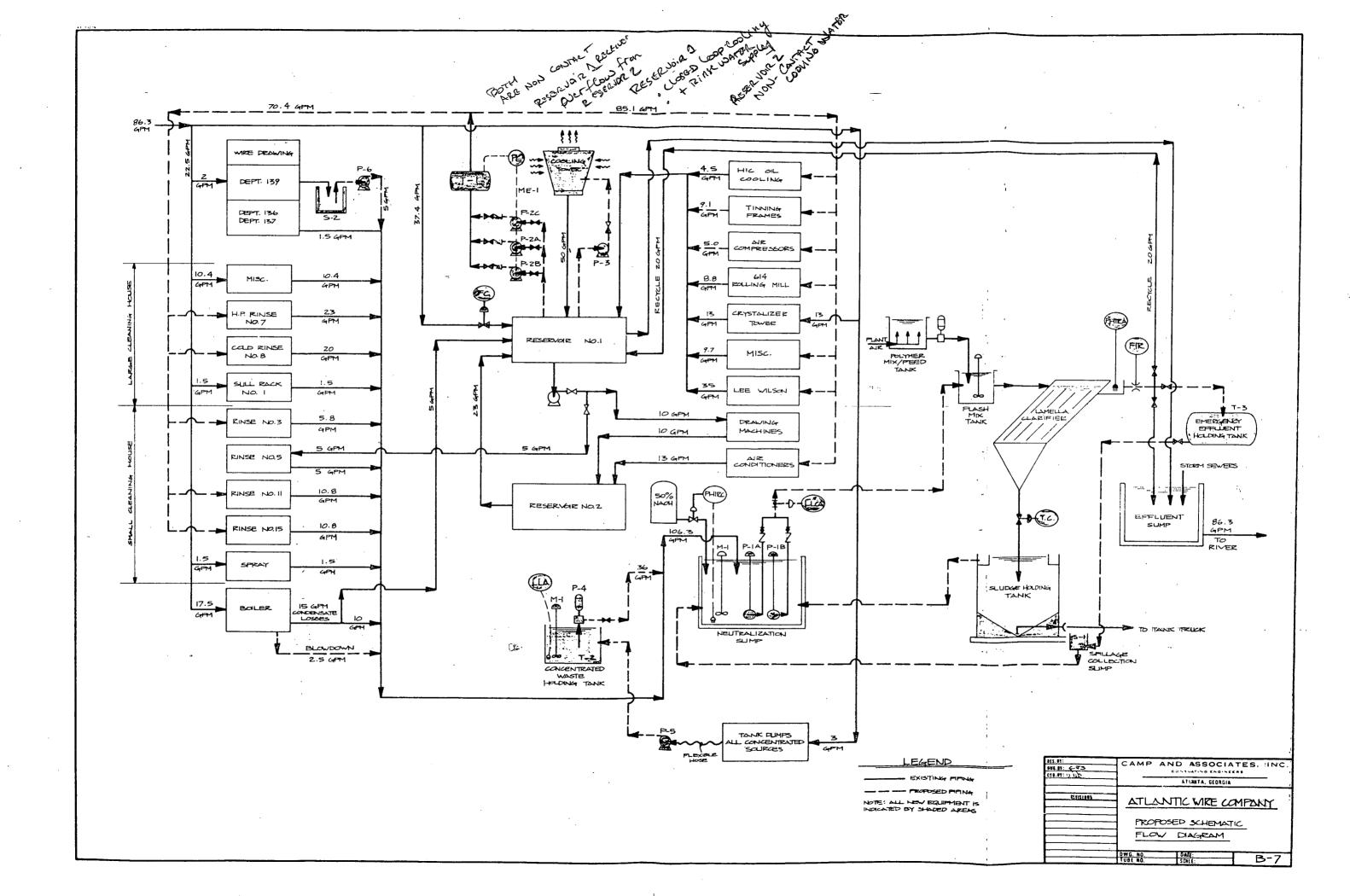
WASTEWATER QUANTITIES AND CHARACTERISTICS

	FLOW RATE		TSS	TOC	Cr	Cu	Fe	Ni ma/l	Sn mg/1	Zn mg/l	0&G mg/l
SOURCE	<u>GPD</u>	<u>pH</u>	<u>mg/1</u>	mg/l	mg/1	<u>mg/1</u>	mg/l	mg/l	11197 1	<u> </u>	<u>37</u>
LCH Rinsewaters	42720}	1.6	45	-	0.68	3.6	594	.44	7.76	2.5	-
SCH Rinsewaters	48810)										
Boiler Condensate Losses*	14400									·	
Boiler Blowdown	3700	10.9	133.3								
Dept 136)		6,6	98.0				.784			.07	519.
Dept 137	900	7.6	1235.7			70.	32.0			2.0	
Dept 139	300	7.4	1299				56.5			1.05	
Miscellaneous	15000		· ′								
Tank Dumps	4300				,						i
Total	178,940	**					•				

^{*}Quantities presented are the estimated amount which enters the contaminated system

^{**}Average operating flow rate = 106.3

- 6. Provision must be made to divert all overflows and dumps from lubricant, soap solution and cooling systems to the contaminated wastewater system.
- 7. pH control and polymer addition in the treatment system should be optimized to maximize operational efficiency while minimizing the use of caustic and polymer.
- 8. Recycle from the clarifier overflow should be diverted to reservoir
 No. 1 as required for make-up to the non contaminated system.
- 9. Improvement to the non contact cooling water should be implemented including:
 - a. Use of this water source for spray rinse and rinse tank makeup in the small and large cleaning houses,
 - b. Installation of cooling towers to facilitate recycling cooling of the Lee Wilson, HIC, air compressor and air conditioner equipment.



ATTACHMENT B

VII WASTEWATER TREATMENT SYSTEM

General

The Wastewater Treatment System is a Physical-Chemical type of treatment system. The process consists of caustic addition to an optimum pH, flocculant addition, and gravity settling. With the addition of the caustic; hydroxides of the metals present are formed. In order to remove these compounds and other solids, gravity settling is employed. To enhance the settling operation, polymer is used. The polymer aids settling by enhancing the formation of a "floc" which is essientally agglomerated solids particles which are heavier than the individual particles would be without polymer. Elements of the system are as shown schematically on drawing A-3 in Appendix A. Recent system additions/modifications are shown on drawing M-1 of the "As Built" Water and Wastewater System Improvements.

In addition to the general descriptions contained herein, the operator should become familiar with the details for operation and maintenance contained in the Manufacturer Equipment Data which is on file at the Plant Engineering office. A summary of the Wastewater Treatment System Equipment is shown on Table 6.

Caustic Addition

Wastewater enters the influent sump at the southeast corner of the underground portion of the pump house structure. Caustic (50% NaOH) is added to the wastewater to an optimim pH of 9.2 through a pneumatically operated pinch valve. A mixer is installed in the influent sump to produce a homogeneous mixture. The flow of caustic

TABLE 6
WASTEWATER TREATMENT SYSTEM EQUIPMENT

Item	Description	Manufacturer	Model/Catalog No.
CV	Causic Control Valve		
PH1RC	pH Indicator, Control- ler Recorder	-	
P-1A, P-1B	Wastewater Pumps	ITT-Marlow Midland Park, NJ	32 HEL-9C
LC	Level Controller	Square - D	Class 9039
FC	Flow Controller	Foxboro Foxboro, MA	43 AP
CA	Flow Control Valve	DeZuric Sartell, MN	0300, Fig. 131, F, 2, ACGP7, P1
FIT	Flow Indicator Totalizer	Foxboro Foxboro, MA	Indicator E83 Totalizer 99A
_	Floculator		
	Polyelectrolyte Feed Systme	,	
pHIA	pH Indicator Alarm		
_	Lamella Clarifier	Parkson Corp	
pHIA	pH Indicator Alarm	Foxboro	Monitor - 2220
CA	Sludge Control Valve and Actuator	Quarter Master Worcester Controls	3" Butterfly Series 75
TC	Sludge Timer Control	Intermatic Grand Rapids, MI	Series C 8865 Model V41079
LIA	Level Indicator Alarm - T-3	Foxboro Corp Foxboro, MI	s
-	Instrument Air Com- pressor	Dayton	Speedaire

is controlled by a pH indicator recorder controller which is mounted in the pump house.

Periodic checks of the Caustic system should include the following:

- 1) Check caustic storage tank level
- 2) Check pinch valve for proper function
- 3) Check mixer operation
- 4) Check pH control function and setpoint

Wastewater Pumping

Wastewater pumps (P-1A & P-1B) which are housed in the new pump house addition transfer the pH adjusted wastewater to the flocculation chamber. These pumps are equipped with two control systems; a level control system, and a flow control system. The flow control system will automatically open or close the flow control valve to maintain a constant level in the sump. The sump operating level can be set by the operator. The level control system will automatically stop the lead pump on low level, restart a pump as the level rises, and start the second pump on high level. The control systems also include provisions to alternate the pumps to provide even wear, and to sound an alarm on high level.

The discharge piping from the pumps to the flocculation tank is fitted with a flow meter which provides constant flow indication and a digital readout of total flow.

Periodic checks of the pumping system should include the following;

- 1) Test both pumps to insure operation and flow.
- 2) Check flow control system level setting & valve operation.
- 3) Check level control system function and level setting.

Polymer Feed/Flocculation

Polymer is presently supplied to Atlantic Wire Company in a dry powder form. It is mixed with water in a day tank to provide solution which is feed to the flocculation tank. In the flocculation tank, the polymer solution is mixed with the wastewater by a slowly moving paddle type mixer.

The following items should be checked periodically;

- 1) Check polymer solution supply
- 2) Check polymer solution feed pump rate & flow
- 3) Check flocculation mixer for operation

Gravity Settling

For gravity settling, the Atlantic Wire Co. system employs a "Lamella" type clarifier. The Lamella clarifier is a specially designed unit which consists of a series of parallel plates installed on an angle of approximately 60 degrees. Wastewater travels between the plates at a slow rate which allows the solid particles to settle, travel down the plates and accumulate in the sludge hopper at the bottom of the clarifier. Clarified effluent from the unit flows over a weir at the outlet of clarifier and is discharged by gravity to the effluent sump where it mixes with excess cooling water and storm water. From the effluent sump, the treated wastewater flows by gravity to the Branford river.

The effluent piping system for the clarifier also includes provisions for recycling the treated wastewater back to the mill through an 8" line. As shown on the drawings, the valve to the effluent sump can be opened & treated wastewater would then flow to Reservoir #1.

Periodic checks of the Lamella clarifier should include;

- 1) Visually observe effluent quality
- 2) Check for solids carry over at weir
- 3) Check sludge blanket depth

Emergency Storage Tank System

The Lamella clarifier is equipped with a pH indicator alarm at the discharge end. In the event that the pH of the wastewater is outside the specified range of 6.0 to 9.0, an alarm bell will sound. This alarm bell is installed on the outside wall of the pump house. Under such conditions, the operator would close the valve to the effluent sump, and open the bypass valve to the emergency effluent storage tank (T-3). When the pH of the wastewater is again within the acceptable range, the bypass mode is discontinued. The wastewater is then "bled" into the influent sump by opening the discharge valve at the bottom of the tank. The emergency effluent storage tank is equipped with a level indicator. A dial indicator is mounted on the instrument panel in the pump house addition.

Periodic checks of the emergency storage tank system should include;

- 1) Check pH indicator/alarm for proper function
- 2) Check tank T-3 valves for proper setting; open or closed as required
- 3) Check tank T-3 level and level indicator reading

Sludge System

As described previously, solids accumulate in the bottom of the Lamella clarifier. This sludge material must be periodically removed from the clarifier. The sludge discharge is equipped with a

timer control valve which allows discharge of the sludge into the sludge holding tank. The timer should be set to open the valve frequently for short periods of time. Operator experience will determine the frequency and duration of valve opening required to prevent sludge from overflowing the clarifier wier. Sludge in the holding tank is allowed to settle and is periodically removed (twice/week) by tank truck. The sludge is then transported to a holding lagoon at the City of Branford Wastewater Treatment Plant. Ultimate disposal of the sludge is by the city to their sanitary land fill.

Periodic checks of the Sludge System should include;

- 1) Check control valve for proper function
- 2) Check timer control for proper sequencing and sludge flow
- 3) Check to insure pH probe is not exposed during sludge removal
- 4) Check holding tank valve settings to insure sludge supernatant is directed to influent sump
- 5) Check to insure that sludge withdrawal valves are closed and that hoses are positioned to drain into sump S-1
- 6) Check line from S-1 to influent sump to insure that it is free of solids and debris

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ATTACHMENT C

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WATER AND WASTEWATER REPORT

NAME: <u>Atlantic Wire</u>

SOURCE OF SAMPLE: Sludge

ADDRESS: _

1 Church Street

Branford, CT 06405

DATE OF COLLECTION: 4/11/85

ATTN:

DATE:

Doug McConnell

4/30/85

COLLECTED BY: Aqualogic

Parameter	Result		Result
Mass Analysis			
Cr	0.520	g/kg	
Ni	0.526	g/kg	/
CNT	0.01	mg/l	-
TOC	362	mg/l	
76. distribution (1967) distribution and an analysis of the second and analysis of the second and an analysis of the second analysis of the second and an analysis of the second analysis of the second and an analysis		* * = ; x = =	
,			

Comments:

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Approved by:

Joseph J. Lika, Technical Director

Approved Public Health Laboratory No. PH-0454-State of Connecticut

INDUSTRIAL WASTE WATER TREATMENT SYSTEMS



ENGINEERS + CHEMISTS
DESIGNERS + MANUFACTURERS

WATER AND WASTEWATER REPORT

NAME .	Atlantic	Wire	Company

SOURCE OF SAMPLE: Liquid Sludge

ADDRESS: 1 Church Street

06405 Branford, CT

DATE OF COLLECTION:

4/25/85

ATTN:

Bob Wilson

COLLECTED BY: Aqualogic

DATE:

5/10/85

Parameter	Resu	1.t	Parameter	Result
	324	mg/1 ~		
Ni .	1.58	mg/l		
Cr	< 0.05	mg/l	,	
			·	
			· ·	

Comments:

The above results reflect analyticals performed on EP Toxicity test leachate as per EPA Manual, "Test Methods for Evaluating Solid Waste" 1980 edition.

Approved by:

Technical Director

Approved Public Health Laboratory No. PH-0454-State of Connecticut

<-Less Than

ENUMBERS . CHEMISTS DESIGNERS . MANUFACTURERS

Baltin Johnson WASHE Widnes Top ADMINISTRAS NAME: Atlantic Wire SOUR

SOURCE OF SAMPLE:

Sludge

ADDRESS:

1 Church Street

Branford, CT 06405

DATE OF COLLECTION:

5/9/85

ATTN:

DATE:

Doug McConnell

5/30/85

COLLECTED BY:

Aqualogic

Parameter	Res	:ul.t:۩	.Parameter	Result
EP Toxicity				
Ni	1.73	mg/l		
Cr	∠0.05	mg/l		
TOC	359	mg/1 ==		
		, , <u>, , , , , , , , , , , , , , , , , </u>	·	
		-		
 -				

Comments:

The above results reflect analyticals performed on EP Toxicity test leachate as per EPA Manual, "Test Methods for Evaluating Solid Waste" 1980 edition.

Approved by:

Joseph &

Latka, Technical Director

<-Less Than

Approved Public Health Laboratory No. PH-0454-State of Connecticut

INDUSTRIAL WASTE WATER TREATMENT SYSTEMS



ENGINCERS + CHEMISTS
DESIGNERS + MANUFACTURERS

AUG 5 1985

WATER AND WASTEWATER REPORT

NAME:	Atlantic Wire	SOURCE OF SAMPLE: Sludge Sample
ADD RESS:	1 Church Street	
	Branford, CT 06405	DATE OF COLLECTION: 6/24/85
ATT.	Rob Wilson	COLLECTED RY: Acualogia

	!		*
PARAMETER	RESULT	PARAMETER	RESULT
тос	481.0 mg/l	-	
		1	

COMMENTS:

DATE:

7/25/85

APPROVED BY:

Technical Director

APPROVED PUBLYC HEALTH LABORATORY

NO. PH-0454-STATE OF CONNECTICUT

< = LESS THAN

INDUSTRIA, WASTE WATER TREATMENT SYSTEMS



ENGINEERS + CHEMISTS DESIGNERS . MANUFACTURERS ATTACHMENT D

	TIAMOR	FORM 4		SAFE			HEET	Cook 5 No	's Ind	iles S	l Lub treet	ricant	s (§
	Pennwa	Product Name				Pennwalt	Code No.	Lind	en, N.	J. 070	36		
MYTHER	Rugt	Preventa:	tive 48°	.8		E8J57	1A	Emerge	ncy Phone	Number()		
	Chemical F	hemical Name and Molecular Formula						Business: 201-862-2500					
								Others					
j,	, .		e of pet	roleum o	il, petr	oleum s	olvent	CAS NO	. (6)				
	and ad	ditives.										2500 2500 2500 250, LC50, etc.) 250, LC50, etc.)	
	Synonyms							Chemic	<u>lixture</u> al Family				
								Petro	leum 9	Solvent			1
		MA	TERIALS C	R COMPONE	NTS		16 W/W					LC50, etc.	.)
	(petro	oleum) (C.	AS # 647				80-90		ppm TV				
		64741-5		olowa oil	gratit		5-15	TLV	5 mg/N	1 ³ (as	an oi	1 mist)
	DOT:		EVENTIVI	E COATING	; COMBUS	TIBLE 1							
	Balling Po	int/Range ·		Meiting Point			Freezing Point			Molecu	ar Weigh	(Calculat	ed)
	Mide F	an Ca	۰F	NA.	°C	٩F	Wide Ra	nåc	°F	: NA	A		
	Specific G	ravity (H2O=1)		Vapor Pressu	re (mm He))	1197	Vapor D	ensity (Air			
	0.935	@	25 /	25 ℃	NE	@	°C	°F	1	8			
W.C	Solublity	in H ₂ O		% Volatiles by		7	Evaporation R	late		-			
2	Negl1s	thle	,	86		ļ	▶ 1.0	Etn	or = 1	Wate	r = 1		ylacetate
	Appearant	and Odor					Öther						
4	Flash Poin	t	,	Test Method	Flammable L	imits			Autoignii	ion Temp	erature/F	ire Point	
		°C 1	°F		Lower	%	Upper	%		۰۵			۰F
N.	EXTINGU	ISHING MED	AR '	c.o.c.l	NE NE			, ,	NE	℃	· · · · · · · · · · · · · · · · · · ·		
	Wate	w- 🗀 v	Veter- og	Water	X co		Dry		ohoi	X Foar	n l		or
2		FIRE FIGHTI	•	LIRES	ورو تين	<u> </u>	A chemical	100	m	م ا		L send	
A		ot enter '' 🦳	Allow 199		A Walking	De ves	2 t	en selfsoons	sines :	pesyl for a			
5		L FIRE AND E					(A) (-A)	escoing spi	peratus		·		
; ;		explosion	Sensiti to sho	vo	ntamination	Ter	mperature [Other	Α				
V.	STABILIT			Y''			INSTABILITY	(specify					
	X Stabi	, <u> </u>	Instable	Therma	1	Pho			0	, 			
ين. د ز		· · · · · · · · · · · · · · · · · · ·		decomp			radation	لــا	Polymeria	estion	- ا	ontaminat	ION
7	INCOMPA Stron	TIBILITY - A	void contact	with Strong	رب د.	(.							
	acids		ikalis	X oxidise		her ecify):							ļ
	HAZARDOUS DECOMPOSITION PRODUCTS - THERMAL AND OTHER (IIIL)												
ڎ		THE THE TABLE TO SEE THE THINK AND UTHER (III)											
	Carbon monoxide may form upon incomplete combustion.												
A			D					_					
e, ô	Heat	اللقا	lames	X Sperks	قو ليك <i>ل</i> ا	nition urces	Othe (spec						
		_	F MATERIA	L IS RELEAS	ED OR SPILL	.ED	_						
6	Flust water	n with	Absorb w	ith send	Neutraliza	· v	Sweep or sco	ရှော	X Evacu	upwind. ate enciose	od X		spread
_		A up and remove A spaces. A of spill											
f		palately	Other (specify):							a or m	ay em	-cr 36/	,
	WASTE DISPOSAL METHOD - Consult federal, state, or local authorities for proper disposal procedures.												
5' 1										f abso	rbed n	nateria	al at
				posal sit			_		-		<u></u>		
	•			-		•		•					

"The above information is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to Change and the conditions of handling and use, or misuse are beyond our control, Penniwall MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. Uses should satisfy bigged that he has all current data from the provided t

U.S. DEPARTMENT OF LABOR

Occupational Safety and Health Administration

OMB No. 44-R1367

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1916, 1916, 1917)

and the second s	····	SECT					
MANUFACTURER'S NAME		· .	E	MERGENCY TELEPHO	NE NO.		
APEX ALKALI PRODUCTS COMPANY. 215-483-3939							
ADDRESS (Number, Street, City, State, and ZIP C	ode)						
MAIN & RECTOR STREETS PHILAD	ELPH	IA, PA.	19127 TRADE NAM APEX 'SP	E AND SYNONYMS	R		
CHI MICAL FAMILY			FORMULA				
SECTION	V 11 -	HAZAR	DOUS INGREDIEN	ITS			
PAINTS, PRESERVATIVES, & SOLVENTS	16	TLV		TALLIC COATINGS	24	TLV (Units)	
PIGMENTS Not a paint		term de la Compañ	BASE METAL NOT	a metal			
CATALYST			ALLOYS			 	
VEHICLE			METALLIC COATINGS				
SOLVENTS	_		FILLER METAL PLUS COATING OR CO	RE FLUX			
ADDITIVES BOTAX Pentahydrate	8.7	1	OTHERS				
OTHERS			_			TLV	
HAZARDOUS MIXTUR	ES OF	OTHER LI	DUIDS, SOLIDS, OR GAI	iES .	*	(Units	
This MSDS complies with Stand	ards	as set	forth in 29 CFR	1910.1200(G)(2	2).		
				• •			
	·····						
SE	CTIO		PHYSICAL DATA				
BOILING POINT (°F.)		NA	SPECIFIC GRAVITY		OX .	1.09	
VAPOR PRESSURE (mm Hg.)		NA	PERCENT, VOLATILE BY VOLUME (%)		2	% Max	
VAPOR DENSITY (AIR-1)	; ,	NA	EVAPORATION RATE			NA	
SOLUBILITY IN WATER		luble	<u> </u>				
APPEARANCE AND ODOR A pale blu	e, gi	anulat	ed soap powder.				
SECTION IV	· FIF	RE AND	EXPLOSION HAZA	ARD DATA			
FLASH POINT (Method used) NA			FLAMMABLE LIM			Uel	
EVELOCULE MAN ALEDIA	in a	direct	flame but is se	lf-extinguishir	ıg.		
SPECIAL FIRE FIGHTING PROCEDURES							
	-		*				
UNUSUAL FIRE AND EXPLOSION HAZARDS	5	None	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		· · · · · · · · · · · · · · · · · · ·		

soap powder.	cory irritation and eye irritation as with
mergency and first aid procedures lash eyes and skin thoroughly wit	h water. If swallowed, induce vomiting and
obtain medical aid.	

			SECTIO	ON VI - R	EACTIVITY DATA			
STABILITY	UNSTABLE			CONDITIONS TO AVOID				
		STABLE		Add				
INCOMPATABILI	ruls to avoid)	No sp	ecial haz	zards known.				
HAZARDOUS DE	COMPOSI	TION PRODUC	rs	None kr	IOWI			
POLYMERIZATION		MAY OCCUP	1		CONDITIONS TO AVOID			
		WILL NOT OCCUR		×		***************************************		

SECTION VII - SPILL OR LEAK PROCEDURES								
STEPS TO BE	TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED							
Sweep up.	Wash area with water.							
WASTE DISPO	SAL METHOD Split water solutions with acid. Skim off fats, and burn,							
reclaim or	r haul to dump.							

	SECTION VIII - SPECIA	L PROTECTION INFORMATION		
RESPIRATORY PI	TOTECTION (Specify LINE)	prese shen handling produces dust.		
VENTILATION	Not normally needed in wi	re drawing operations other		
PROTECTIVE GLOVES Not recommended		EVE PROTECTION Recommended		
OTHER PROTECT	IVE EQUIPMENT			

SECTION IX - SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	
No special precautions.	
OTHER PRECAUTIONS	
THE INFORMATION PRESSNIES NESS IN MANUE	

PAGE (2)

TANGERTON PRESENTED PRESENT OF CUR RECOVERED TO THE BEST OF CUR RECOVERED TO THE BEST OF CUR RECOVERED TO WARRANTY OR GUARANTEE STREET OR WARRANTY OR GUARANTEE STREET OR STREET OF MADE RECOVERED TO THE PRESENT OF STREET OF STR

Ferm OSHA-20 Rev. May 72 TARTIC WIRE

PORD, CT 06408

U.S. DEPARTMENT OF LABOR

Form Approved OMB No. 44-H1397

Mr. bort Bandon

Occupational Safety and Health Administration

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

Shipbullding,	and Sh	ipbreskin	9 (29 CFR 1915, 1916, 1917)				
	,	SECT	ION I				
MANUFACTURER'S NAME			EMERGENCY	TELEPHONE N	ο.		
APEX ALKALI PRODUCTS COMPANY			215-483-	215-483-3939			
ADDRESS (Number, Street, City, State, and 21P C MAIN & RECTOR STREETS, PHILA	ode) P A	19127	,				
CHEMICAL NAME AND SYNONYMS	I-A	-A	TRADE NAME AND SYNO	NYMS			
CHEMICAL FAMILY			FORMULA				
							
SECTIO	NII ·	HAZAF	DOUS INGREDIENTS				
PAINTS, PRESERVATIVES, & SOLVENTS	*	TLV (Unita)	ALLOYS AND METALLIC COA	TINGS	%	TLV (Units)	
PIGMENTS Not a paint			BASE METAL Not a metal				
CATALYST			ALLOYS				
VEHICLE			METALLIC COATINGS				
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX				
ADDITIVES			OTHERS				
OTHERS							
HAZARDOUS MIXTUS	ES OF	OTHER LA	DUIDS, SOLIDS, OR GASES		*	TLV (Units)	
This MSDS complies with Star		 		200(C) (2)			
THE PADO COMPTION WITH OLD	Idara	3 43 36	t totth in 29 cfk 1910.12	200((1)(2)).			
						- 	
		· .			-		
SE	CTIO	N III - I	PHYSICAL DATA		-	- 	
BOILING POINT (°F.)			SPECIFIC GRAVITY (H2O+1)				
		NA TA		approx.		<u>.07</u>	
VAPOR PRESSURE (mm Mg.)		NA ;	100000000000000000000000000000000000000		4	8	
VAPOR DENSITY (AIR+1)	<u> </u>	NA	EVAPORATION RATE			NA	
SOLUBILITY IN WATER	5	Soluble	4				
APPEARANCE AND ODOR An off-white	, gra	nulate	d powder with characteris	tic soapy	od	or.	
SECTION IV	. E15	E AND	EXPLOSION HAZARD DATA		-		
ELASH BOINT (Mathed word)			FLAMMABLE LIMITS	Lal	T	Uel	
NA NA				<u> </u>			
EXTINGUISHING MEDIA Will melt and burn mildly in a	dire	ct fla	ne but ceases to burn sho	rtly afte	r t	he wed	
SPECIAL FIRE PIGHTING PROCEDURES			1	Tame 19 I	- IIIC	, v cu .	
UNUSUAL FIRE AND EXPLOSION HAZARDS	8	None	<u>ar agus a paga ang ang ang ang ang ang ang ang ang </u>				
1							

							
		SI	ECTION	V	· HEA	LTH HAZAR	D DATA
THRESHOLD LIMI					NA		
EFFECTS OF OVE	REXPOS	URE Dust m	av couc		·····	n.a	
tion as with	soap	powder.	27	, C	MCC21	ng, respira	itory irritation and eye irrita-
EMERGENCY AND	FIRST	AID PROCEDU	HES				
induce vomit	ing a	nd obtain	Was	sh e	eyes a	nd skin tho	proughly with water. If swallowed
Thate vomit	ing a	na oncarn	medica	11 6	11d.	· · · · · · · · · · · · · · · · · · ·	
	*				·		
			SECTIO	101	// P	EACTIVITY	
STABILITY						EACTIVITY	DATA
UNSTABLE				S TO AVOID			
INCOMPATABILITY	STAH		×				
		•					
HAZARDOUS DECO	OMPOSI"	TION PRODUC	T5				
HAZARDOUS		MAY OCCUR			CONDITIONS		TO AVOID
POLYMERIZATION	İ				x		
		······································	· · · · · · · · · · · · · · · · · · ·	1		<u> </u>	
					··········		
		SECTI	ON VII	. ;	SPILL (OR LEAK PR	OCEDURES
STEPS TO BE TAKE	N IN C	ASE MATERIA	L IS REL	EAS	ED OR S		ep up. Wash area with water.
	·			 -	***************************************		op op. mash area with water.
	· · · · · · · · · · · · · · · · · · ·						
WASTE DISPOSAL	METHO	Split wa	ter sol	lut	ions w	ith agid (Skim off fats and burn, reclaim
or haul to du	m v)				10112 W	ren acid. S	skim off fats and burn, reclaim
or made to du	աթ.						
					·		
		SECTION	/111 - 61	DEC	LAL D	OTEOTION	INCORPAGE TION
RESPIRATORY PRO	TECTIO	N (Specify type	7111 • 31		MAL PI	TOTECTION	INFORMATION
Action and a second	LOCA	WALLACKS TO	Use d	lust	mask	when handl	ing produces dust.
VENTILATION	araw	ing operat	tions.			Planting aft	ing produces dust.
· · · · · · · · · · · · · · · · · · ·		ANICAL (Gene	ral)				OTHER
PROTECTIVE GLOVES Not necessary			EVE PROTECT	Recommended			
OTHER PROTECTIVE EQUIPMENT						······································	*
		SE	CTION	IX	- SPEC	IAL PRECAL	UTIONS
PRECAUTIONS TO E	E TAK	EN IN HANDL	ING AND	\$ TO	BING		precautions.
						- operat	Proceductions.
OTHER PRECAUTIO	NS				· · · · · · · · · · · · · · · · · · ·		
						·	

PAGE (2)

THE INFORMATION PRESENTED MESSIM, WHILE MUST CO-CHARAMTERS, IS TO THE BASE OF OUR ENGINEEROD TRUE AND ACCUMATE. NO WARRANTY OR GUMANNESS FORWARDS OF STREET
Form OSHA-20 Rev. May 72 Lantic Wire Durch Boad Liport, et 06403

- hart Hauden

U.S. DEPARTMENT OF LABOR Occupational Safety and Health Administration

Form Approved OMB No. 44-R1387

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1916, 1916, 1917)

Snipbullaing, a	ana Sn	ippreakin	g (29 CFR 1916, 1916, 1917)					
		SECT	ION I					
MANUFACTURER'S NAME APEX ALKALI PRODUCTS COMPANY EMERGENCY TELEPHONE NO. 215-483-3939								
ADDRESS (Number, Street, Cite, State, and ZIP Co MAIN & RECTOR STREETS, PHILA., CHEMICAL LAMICANDES, YNONYMS, CHEMICAL LAMILY	νις) ΡΑ.	19127	TRADE NAME AND SYNONYMS APEX "WD-26L"					
			<u> </u>	- 3				
SECTION	111 -	HAZAF	IDOUS INGREDIENTS	~~~~				
PAINTS, PRESERVATIVES, & SOLVENTS	*	TLV (Unite)	ALLOYS AND METALLIC COATINGS	×	TLV (Units)			
PIGMENTS Not a paint		10111197	BASE METAL Not a metal		(0			
CATALYST			ALLOYS					
VIHICLE			METALLIC COATINGS					
50LVENTS			FILLER METAL PLUS COATING OR CORE FLUX					
ADDITIVES EDTA Acid	.7	N/A	OTHERS					
отнеяs Potassium Hydroxide	4.7	N/A						
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES % (U								
Not considered a hazardous mixture. "WD-26L" is a liquid soap lubricant.								
It contains no diethanolnitrosa	mine	· This	MSDS complies with Standards as	!				
set forth in 29 CFR 1910.1200(0	;) (2)			1				
								
	1		PHYSICAL DATA					
ноплистони ("г.)	2	1201.	SPECHIC GRAVITY (II)O I)	1	.022			
VAPOR PRESSURE, (non-Elg.)	NA		BLACENT, VOLATILE BY VOLUME (%)		64.5			
VAPOR DENSITY (AIR-1)	NA		(1)		NA			
SOLUBILITY IN WATER	Con	plete	•					
APPEARANCE AND ODOR A clear, pal	e-ye	llow l	iquid with a mild soap odor.					
SCOTION IN	510	C 4410	5V0.00.01					
SECTION IV - (Method used) NA	FIH	E AND	EXPLOSION HAZARD DATA		Uni			
EXTINGUISHING MEDIA Would be cor	 icida	red no	n-flammahla	_1				
SPECIAL FIRE FIGHTING PROCEDURES		TOU IIU	11-1100000010					
	lone	ara s ar s mph a			· · · · · · · · · · · · · · · · · · ·			
UNUSUAL FIRE AND EXPLOSION HAZARDS		ione						

	SECTIO	NV . HEA	LTH HAZARD DATA				
THRESHOLD LIMIT VAL	LUE		LIN HAZARD DATA				
EFFECTS OF OVEREXP	NA OSURE NORTH		distance and the second				
manager to the state of the state of	None rep	OULTED					
EMERGENCY AND FIRS	T AID processions						
	W	hen splas	hed in the eyes, wash out thoroughly with				
water.							
	SECTI	ON VI - R	EACTIVITY DATA				
AU AITHURIS	STABLE.	Committee	45 TO AVOID				
į -	The second secon	The state of the s					
INCOMPATABILITY (Ma	A						
HAZARDOUS DECOMPO	N	one known					
	STOR PRODUCTS	NA .					
HAZARDOUS	MAY OCCUR		CONDITIONS TO AVOID				
POLYMERIZATION	WILL NOT OCCUR	X ·					
Scoop bulk into			ith water.				
	SECTION VIII	SPECIAL P	ROTECTION INFORMATION				
m spina long pholific	TIAM MOUNTAIN THE		Ty.				
VENTILATION 10	CONG. EXTINUIST		199 CIA				
	NO CHANICAL (Concrut)	ot needed					
PHOTECTIVE GLOVES	- The second sec	······································	OHUR				
Not	normally used		Recommended				
OTHER PROTECTIVE TO	TUIPMENT						
1	SECTION	VIX - SPE	CIAL PRECAUTIONS				
PHECAUTIONS TO BE T	AKI N IN HANDIJING AN	ID STUHING					
regard to safety	. Avoid freezin		No special precautions necessary with eratures over 200°F.				
OTHER PRECAUTIONS		P of remb	GLALUFES OVER 200 F.				
			• • • • • • • • • • • • • • • • • • • •				
	THE INFORMATION	PRESENTED MERLIN,	Mante moj				
PAGE (2)	TAUL AND ACCURATE EXPRESS OR IMPLIES PORMANCE OR SY	AND OF THE PERSON	ment that				

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PORMANCE OR STABLITY OF NET MODULET, SINCE THE PLANNIS OF SEE AND CORNELISOR OF STORAGE AND CONTROL OF STORAGE AND MARKENO AND MARKENO AND RESIDENCE USE, MICE APPLICATION FOR PROJECT USE, MICE APPLICATION FOR STABLE OF CHIEF AND ANY SELECTION PARTY.

Form OSHA 20 Rev. May 72

CURLII BOAD ANFORD, CT 06405

U.S. DEPARTMENT OF LABOR Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

Mr. Bert Bowden

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECT	ION I
MANUFACTURER'S NAME APEX ALKALI PRODUCTS COMPANY	EMERGENCY TELEPHONE NO. 215-483-3939
ADDITUS (Number Street, City State, and ZIP Code) MAIN & RECTOR STREETS, PHILADELPHIA, PA.	19127
CHEMICAL FIAME AND SYMONYMS	TRAPEX MUSC-37 COMPOUND
CHI MICAL FAMILY	FORMULA

PAINTS, PRESERVATIVES, & SOLVENTS % TLV ALLOYS AND METALLIC COATINGS				%	TLV (Units)
PIGMENTS BASE METAL					
CATALYST			ALLOY5		
VEHICLE			METALLIC COATINGS		
Ethylene Glycol SOLVENIS Monomethyl Ether 5 100 FILLER METAL PLUS COATING OR CORE FLUX					
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURI	S OF	OTHER LI	QUIDS, SOLIDS, OR GASES	%	TLV (Units)
Not considered a hazardous mix	ture	. Comp	ounded of mineral oil, emulsifie	,	
fatty ester, soap and coupling	age	nt. Th	is MSDS complies with Standards		
as set forth in 29 CFR 1910.1					

SECTION III - PHYSICAL DATA							
BOILING POINT (°F.)	N.A.	SPECIFIC GRAVITY (H20-1)	.92				
VAPOR PRESSURE (non Fig.)	N.A.	PERCENT, VOLATILE UV VOLUME (%)	Low				
VAPOR DENSITY (AIR-1)	N.A.	EVAPORATION RATE	N.A.				
SOLUBILITY IN WATER	Dispersible		•				

SECTION IV - FIRE AND EXPLOSION HAZARD DATA							
FLASH POINT (Method used) >220°F. C.O.C.	FLAMMABLE LIMITS	Lei	Uei				
extinguishing media CO2 or Foam		anterior de la constitución de l	\$				
SPECIAL FIRE FIGHTING PROCEDURES As with other 1	lubricating oils.						
UNUSUAL FIRE AND EXPLISION HAZARDS Normal for pe	etroleum products of	this flash	point.				
Use as an emulsion in water practically oli	minates in-uso hazaro	i.					

No detrimental effects have been reported to us.		SECTION V - HEALTH HAZARD DATA
	THRESHOLD LIMIT VALUE	N D
	EFFECTS OF OVEREXPOSURE	No detrimental effects have been reported to us.
EMERGENCÝ AND FIRST AID PROCEDURES Wash hands after use and use good skin cream to	EMERGENCÝ AND FIRST AID P	ROCEDURES Wash hands after use and use good skin cream to
avoid chapping. Use good personal hygiene. Wash contaminated eyes thoroughly with	avoid chapping. Use g	good personal hygiene. Wash contaminated eyes thoroughly with
water.	water.	

	•					
STABILITY		NSTABLE		CONDITIONS TO AVOID		
	STA	STABLE				
INCOMPATABIL	TY (Mater	rials to avoid)	<u></u>	<u></u>		distribution of the companies of the control of the
HAZARDOUS DI	COMPOSI	TION PRODU	bearin	g gases.		
HAZARDOUS		MAY OCCU			CONDITIONS TO AVOID	
POLYMERIZATI	ON	WILL NOT OCCUR		Х		

SECTION VII - SPILL OR LEAK PROCEDURES
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Absorb with floor dry. Wash area with water.
WASTE DISPOSAL METHOD
Evaporative concentration of the emulsion. Burn oil residue in
equipment with fume scrubbers.

		PROTECTION INFORMATION
RESPIRATORY PI	AOTECTION (Specify Type) Not requir	red
VENTILATION	LOCAL EXHAUST Recommende	ed SPECIAL
	MECHANICAL (General)	OTHER
PROTECTIVE GL	Not required	EVE PROTECTION Recommended
OTHER PROTECT	IVE EQUIPMENT Rubber apro	n

SECTION IX · SPE	ECIAL PRECAUTIONS
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	Normal for soluble oil lubricants.
Emulsion is subject to bacterial attack.	If suspect, treat with APEX "BACTISOL"
OTHER PRECAUTIONS No special precaution	ons.
THE INCOMATION PRESENTED	Million, Woming and

PAGE (2)

THE INCOMMATION PARSHILLS MERLIN, WHITE NUT-GUIARANTISO, IS TO THE BASE OR THE SECTION ASSESSMENT YELF AND ACCURATE, MY WARRANTY OR DUMARANTES EXPERT OR INDIVIDE IS SEARCH BEGGARDING THE PER-PORIGIANCE OR STRAILTY OF ANY PRODUCT, SINCE THE MARKES OF VIEW AND CORRESPOND OF STORAGE AND MARKES TO ARE ESTABLISHED OR STORAGE HIS AMD MARKES TO ARE SEVENING SOME CONTROL HIS DAMLESSING TO THE SECTION OF STORAGE AND SANTIMENT OF STORAGE CONTRIBUTION FOR PERMICE WISE, INCOMMENT AS A SECONDATIONAL TOP STORAGE WAS TO INVESTIGATION FOR STORAGE OF AME SERVICES OF STREET

Form OSHA 20 Rev. May 72

WITTE WIRE HURCH ROAD

TANEORD, CT 06405

U.S. DEPARTMENT OF LABOR

Form Approved OMB No. 44-R1187

Mr. Bert Bowden

Occupational Safety and Health Administration

Required under USDL Safety and Health Regulations for Ship Repairing,

	and Si	niporeakin	19 (29 CFR 1915, 1916, 1917)		···
		SECT	ION I		
MANUFACTURER'S NAME APEX ALKALI PRODUCTS COMPANY			EMERGENCY TELEPHON 215 - 483 - 3939	E NO.	
Main & Rector Sts., Phila., Pa	in/r) 119	127	TRADE NAME AND SYNONYMS		
CHEMICAL LAMB A			TOUMULA PEX "POLYKOTE 8X"		•
SECTION	V 11 -	HAZAF	RDOUS INGREDIENTS		
PAINTS, PRESERVATIVES, & SOLVENTS	*	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS Not a paint		- LELLY LAG	BASE METAL Not a metal		100000
CATALYST	1		ALLOYS		
VEHICLE			METALLIC COATINGS		
50LVEN15			FILLER METAL PLUS COATING OR CORE FLUX	-	
ADDITIVES			OTHERS -		
OTHERS					
HAZARDOUS MIXTURE	S OF	OTHER LI	QUIDS, SOLIDS, OR GASES	*	TLV (Units)
(None) This MSDS complies with Sta	ndar	ds as s	et forth in 29 CFR 1910.1200(G)	(2),	
SE	CTIO	N 111 - F	PHYSICAL DATA		
BOILING POINT ("L.)	7	Ν.Λ.	SPECIFIC GRAVITY (11-Ov.)		1 _
VAPOR PRESSURE (nim Fkg.)	. -	N.A.	MERGENT, VOLATILE APPROX.		0
VAPOR DENSITY (AIR=1)		N.A.	EVAPORATION RATE		N.A.
SOLUBILITY IN WATER	Соп	plete		,	
APPEARANCE AND ODOR					
CECTION IV	510	C 4410.1			
Private Politi (Method osed) N.A.	rin	t and i	EXPLOSION HAZARD DATA	. .	Det
EXTINGUISHING MEDIA N.A.	± . =		The state of the s		
SPECIAL FIRE FIGHTING PROCEDURES NO	n-Fla	mmable			
UNUSUAL FIRE AND EXPLOSION HAZARDS		Non	-		
The second secon		Non			

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Form OSHA-20 Rov. May 78



R.H. MILLER

P.O. Box 350, 43 James St., Homer, New York 13077 • (607) 749 2652



CHEMICALS . EQUIPMENT . HEALTH PHODUCTS

April 15, 1985

Mr. Bert Bowden ATLANTIC WIRE 1 Church Street Branford, CT 06405

Dear Mr. Bowden:

Please find enclosed MSDS sheets for the R.H.Miller products that you requested on April 15, 1985

I am not authorized to give you the individual constituents of any R.H.Miller products. If the MSDS's do not complete answer your questions please contact me in Homer, NY.

Sincerely,

Richard A Neal

Richard A. Neal Director of R & D

RAN:sae Enclosures cc: J. Zito Files

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INTERNATIONAL PROPERTY.	This	Code 4602 5022	to the f Molecular Form Cleaner	Nu Steele 46	product:	R341	Code No. BO1	Emer	gency Phona Businessi Otheri No.(s)		7-6639	
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		X Flush with soap	X Get	medical intion	ГJ	Contaminated	,,- ,-	ontaminated		(specity)	:	·	
	E	YE CONTACT			<u> </u>	remove & launder	LX	oes - destroy		Other (specify)	:		
I		X Flush with plenty at least 15 minutes NHALATION	<u> </u>			Get medical	\mathbf{x}	Other	Eyes				
-	lï	Remove to	give	ot breatning. artificial		Give		specify):			s open	while f	lushing
T	1	Consult an industri	IREMEN	TS - Always ma	الل	_		et medical	_ [Other (specify) :		•
ı		Consult an industri	ial hygieni lealth spec	ist Halist		Exposure below per	1 1 4	SE WITH ADEDL	nits vale	· · · · · · · · · · · · · · · · · · ·			
Z	١٢	Other (specify):					~ LJ ~	ntilation		į	Check t	lor air conta 1900 deficier	minant ncy
£	-	h. 6	F				- 1						
PRIMITION	_		Face shield	, HAND (E TYPE!		nthi	Pol	yvinyi	Other		
æ e	L	Olasses A	Goggies	Poly	inyi 10e	X Neoprene	[N	Sturaj Obber	Po!	A. Duol	(apeci	(Y):	
	<u>ر</u>			VIOSH approved			_X			ylene			
_	L	contained	Supplied air	I GAS O	YAPO	יועו י	ilter - di ime, mi	/ 5 £ ,	011	ner .		•	-
		HUDDER PROTECTIVE		NT Other					[] [16p-	ecity):			
쀡	-	ELCAUTIONARY LA	Apron	(speci							•		
		VI WASH Shoroughing	[Y] Do	not get in eyes,	רער	Do not breatne							
		atter handling	Ciot	hing		dust, vapor, mist,		eep container Oted	' Г	Keep awa	IKS And	Store in	Lightly
2		Do not store near combustibles	MIXI	p from contact clothing and compustible		Empty container	u	se explosion	•	open flan	nes	closed co	ntainers
	011		- mai	er ia is		may contain hazardous residues	Dr	oof uipment	Γ	Other (specify):			
=	···	her handling and storag	90 conditi	ons.									
H.	נח	Inimum contact	with	this and	all	chemicals i	s re	Commende	d ac	a cood	n = 1		
h	D.	McLaughlin,	TÉ	Date 3 20 05	Add	1855	-		- 45	- Roon			to foll
Ĭ.	_	UTS		3-20-85	900	First Ave.	, Kii	ng of Pri	ussia	, PA 1	$\alpha / \alpha / 1$	none	
E		"The above informa change and the cond IMPLIED, WITH REDISCLAIMS ALL L	SPECT T	nanding and use O THE COMP	01 04	If Knowledge, How	ever, 11	Ce dala sala			ernment re	215) 33	7-6634
		IMPLIED, WITH HE DISCLAIMS ALL L	IABILITY	FOR RELIAN	CE TI	EREON. User sho	ING AC	CURACY OF	THEIN	FORMATI	ANTY, EITI ON CONTA	HER EXPRE	SS OR
		b				-				- Chilent	Gata relevan	I to his part	icular use.

) DE	MWMIT	MAIEKIAI "ESSENTIAI ORM 4040 (Rev	LLY SIMILAR	TO OSHA F		HEE	900 First Ave. King of Prussia, PA	
	Pennwell Product	Name	way or responding assessed distribution of	an recording a factor to desire disper-	l.	Code No.	King of Fraskia, 17	1 17400
- 5	This applie			product:	R29B0	1	Emergency Phone Number(s)	37 6630
	Chemical Name an	d Molecular Formi	Name				Business: (215) 31	
	4794	Coppe	rskin 37	D.A.				
	4612		skin 127				CA5 No.(s)	
	Synonyms						Chemical Family	
			····					
		MATERIALS C	OR COMPONE	NTS	· · · · · · · · · · · · · · · · · · ·	% w/w	HAZAND DATA (TLV, L	D50, LC50, etc.)
				•		20. (0	TWA 5 mg/m ³ (Mi	
E CHEST IS	Mineral O	il (8012-95	0-1)			20-40	TWA D mg/m (Mi	st)
3	Diethanol	Amine (111	-42-2)			2-4	TWA 15 mg/m ³	
E T	Dicendioi	1001110 (111						
3			•					`
-								
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2 2					•			
		Not	Regulated	l by Depa	rtment	of Trans	portation	,
FO								•
<u>'</u>						•		
	Boiling Point/Rang	above	Melting Point			Freezing Point]	Veight (Calculated)
S	Specific Gravity (F	200 °F	NA	Vapor Pressu	٩٤	ND	°C °F Mixtu	
3	ND	@ 	/ °C	ND	и е (ти на	' ℃	°F ND	
OPERT	Solubility in H ₂ O		% Volatiles b			Evaporation R		
£ 2	Soluble		ND			ND	Ether = 1 Water =	Butylecotate
	Appearance and O Amber L					Other		
	Flash Point	<u> </u>	Test Method	Flammable L	louise		Tours in the Tours	· · · · · · · · · · · · · · · · · · ·
٤	1	9-					Autoignition Temperat	
	°C EXTINGUISHING		None	Lower	%	Upper NA	% °C	NA °F
LOSTON	Water-	Water-	Water	x co	[7	Dry chemical	Alcohol Y Foam	Earth or
4	SPECIAL FIRE F	-		رين دري		Chemical	L loam LA	L_j sand
	Do not enter building	Allow fire		ter may use frothing	Do not	Wear	Self Contained Breat	hing Apparatus
Ľ	UNUSUAL FIRE	AND EXPLOSION on Sensit			. ()			CONTRACTOR AND ADMINISTRATION OF THE ADMINIS
	L hazard	io inc	ch Co	intamination		mperature	Other (specify):	
	STABILITY	\Box	Therm			INSTABILITY	,	 -
DA	5table	Unstable	decom	position		oto gradation	Polymerization	Contamination
	(Sucono	TY - Avoid contact	with Strong	[lher			en region de manuel de la company de la comp
	X acids	alkalis	X ONIGIZO	116	pecify):			
	HAZARDOUS DE	COMPOSITION P	RODUCTS - T	HERMAL AN	OOTHER	(Hist)		
		1-0xides o	f Carbon;	Sulfur a	and Nit	rogen Cor	mpounds	
豐	CONDITIONS TO					()	Total Control of the	
-8	Heat	Open flames	Sparks	الساءة	nition ources	Othe (spec	ir ilfy):	
	· /	KEN IF MATERIA		SED OR SPILL	LED	7 .	Mana maning	
	X Flush with	A Absorb	with sand material	Neutraliz	• _	up and remo	Keep upwind. Evacuate enclosed spaces.	Prevent spread or spill
	Dispose of Immediately	Other	I	lush to	chemics	al sawar		
		L METHOD - Con					al procedures	
				, 	rerue fu	proper products	proper of.	
	į							CONTINUED ON
	1							1 5 5 1 5 5 5 5 5

NO Applicable.

	1	Oral (scule)	Maryan — English indispensagang kanpan darip kan halak kan san san ini saka ga sama di Andri	eter ordanations a decad	and the same of th		na di S. Anno di Miliara di Ambalia br>Nas-					
1		Judg	ed to be a low	orde	er of toxicit	у 						
		Dermai (acute)	11									
ı	Ì	Eye		· · · · · · · · · · · · · · · · · · 		Int	nelation (acute)					· · · · · · · · · · · · · · · · · · ·
	ļ		itant									
 }	.	Chronic, Subchronic, etc	5.									
TOXICITY										•		
Š	.											
•	.											
									•			
				•								
			0						•			
1			JRE LIMIT (Specify If T					101	heri			
		ACGIH 19	Skin	 	SHA 19		Moderate	Щ.,			The state of the same of the s	
	xpcstar	CORROSIVITY	X Eye		Severe	X	Moderate		Mild (trans	ient)		
	EXE	CORROSIVITY	Skin Eye	Н	4 hrs. (DOT) May cause blindness		24 n	1F8. (C	PSC)			
	7	SENSITIZATION				INH	ALATION EFFECTS	·	· · · · · · · · · · · · · · · · · · ·			
こうできないというながないこう	Efforts	LUNG EFFECTS (Spec	Respiratory	<u> </u>	Allergen	Ш	effect		Cyanosis	L	Asphyxlar	nt
5	_										,	
		OTHER (Specify): Repeated contact- skin defatter	Other (Specify):									
	,	INGESTION Induce	Do NOT						<u></u>			
	T AID	DERMAL.	X yomiting		Give plenty of water	<u>LX</u>	Get medical attention		Other (specify):			
_	KY FR	Flush with soap and water	Get medical attention		Contaminated clothing - remove & launder		Contaminated shoes - destroy		Other (specify):			
	į.	Flush with plenty of at least 15 minutes	of water for	لع	Get medical		I Olbar	8 -				
	E	INHALATION Remove to	If not breatning,		attention	X		ld e	yelids	open wh	ile flu	shing
ا		Iresh air	give artificial respiration		Give oxygen		Get medical attention		Other (specify):			
~		Consult an Industri	IFREMENTS — Always n lal hygienist realth specialist		Exposure below parn Local exhaust	71551	ble exposure limits Use with adequate ventilation		r	Check for	air cuntamir	ant.
Õ	z	Other	Sufficient to				w the specifi	led	Hazardo	us us	n deficiency	
SPECIAL PROTECTION	2	EYE	Face HAND		entration lim	些	Butyl —	Boly	vinyi [Other		
RO	W W	X Safety X		lyvinyt	Neoprene	LX	rubber	Poly	noi [(specity)		
AL.	5		Use only NIOSH approx	loride	L	LX	(ubber	elhy	lene	·		
i E C I	≤	Seil-	Supplied Ca	n or car	triage Fi		· dust,	Othe	ir :Ify):			
Š	İ	OTHER PROTECTIVE						1000				
		Rubber	Apron (16	her pecify);								
	S	PRECAUTIONARY LA	TY Do not get in eye	P\$, [Q Do not breathe		Keep container		Keep away	from r) \$10	
AL	ē	after handling	Clothing Keep from conta	الما	dust, vapor, mist,	L	closed	L	heat, spark open flame	s, and	Store in the	intly lainers
SPECIAL	AC	Do not store near combustibles	with clothing and other combustiplingterials	3	Empty container may contain	Γ	Use explosion proof		Other			
15	PRE	Other handling and stor			hazardous residues		equipment	<u> </u>	(specify):			·
		Minimum contac	t with this an	d all	l chemicals i	. 8	recommended a	8 a	g boog	eneral		
	2410	gh D. McLaughli	DAL	Ad	dress					Tun		follo
┝	AS	"The above inform	nation is accurate to the	Devi of	Our Manufadan III		King of Pruss			1 (2		-6634
	OTE	Change and the co	nditions of handling and	use, or	misuse are peyond of	ul C	-, unice data, Miety st Ontrol, Pennwall MAI	anda: KES I	ras, and gove NO WAHRA	ITAMENLIEGI NTV - FITH	Hations are	Subject 1

Change and the conditions of handling and use, or misuse are peyond our control, Pennwall MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. User should satisfy himself that he has all current data relevant to his particular use

!	EMMALT	FOF	RM 4040 (Rev	LLY SIMILAR	-	FORM 20		900	First A	ve.		9406
	1	Product No. nnlies	me to the fo	11 owing r	roducts:		t Cude No.					
7			Molecular Formi			4		4 i	ncy Phone N	215) 33	7-6639	
4	4633		skin 75			ame	4- 50 /	11		215) 94		
	4850		skin 10		4*		in 76-2	CAS No	>.(4)			
Ż	4834		skin K 4	4			<u>in 7650</u>		ture			
	Synonym Metalw		Compound	•				Chemica Alka	al Family 311			
	,		MATERIALS (OR COMPONE	NTS		% w/w	-	AZARD DA	TA (TLV, L	D50, LC50	, etc.)
	Calciu	m Hydro	xide (130	5-62-0)			30-60	TWA	5 mg/m ³	-		
	Glycer	in Mist	(56-81-5)			4-6	l l	10 mg/m		1 Dust)
89.6												•
			•		·							
320												
ATI								•				
				Not reg	gulated b	y Depa	rtment of	Trans	portatio	n		
E	Boules Oc	unt/Range		Tagalara Garage			•				,	
	NA	ont/Hanga	۰F	Meiting Point ND	°C	۰Ę	Freezing Point	°C	٥F	Molecular V Mix	veignt (Cair Lure	cul ated)
E		iravity (H2C	•	<u> </u>	Vapor Pressu	•		<u> </u>	•	ity (Air-1)		
	NA		@ /	°C	Nil	@	°C	°F		A		
Š	Solubility	in H ₂ O ble		% Volatiles b	y Volume		Evaporation R		er = 1 ["	Water =	, []	Butylacotate
		ce and Odor ite pow					Olner					-1
4	Flash Poir	71	***************************************	Test Method	Flammable L	imits	<u> </u>		Autoignitio	n Tamperati	ure/Fire Po	Int ··
	None	°C	°F		Lower	NA %	Upper	%		°C	NA	۰F
Z	Walt		Water-	X Weter	[]		יים רֹ	☐ Aic	ongi [7 5000		arth or NA
	SPECIAL		JIOS HTING PROCE	URES	co ₂		chemical	100		Foam		and NA
7		not enter	Allow tire	[] w.	ter may [Do no water	t use NA					
Ĭ		noicolgas	D EXPLOSION Sensit to sho	ive	ntamination	·[] .	mperature	X Other	-	ive lim	it=0.5	oz/cu.fi
	STABILIT	· · · · · · · · · · · · · · · · · · ·				-	INSTABILIT	(specify	<u>/):</u>			
	X Stab		Unstable		osition		oto NA pragation		Polymerizat	ion [Contar	nination
	Siro	ng [Avoid contact Strong alkalis	X Strong Oxidize		ner Pecify):						
	HAZARD	OUS DECC	MPOSITION P	RODUCTS · TI	HERMAL AN	OOTHER	(ilst)		· · · · · · · · · · · · · · · · · · ·			
		1 - 0xi	des of Ca	rbon								
	Heat	<u></u>	Open flames	X Sparks		nition	X Oine	r duce				minimize rafters
	Flus	n with	N IF MATERIA	ith sand	ED OR SPILL	.EO	Sweep or sco	pip	es, etc.	wing.		vent spread
		or Pose of ediately	Other	Flush t	O chemic		Le treatπ	ve [enclosed		spill
			(specify) METHOD - Cons	-					ret.			
				Landf i]				,			,	
							•					IULD ON SE SIDE
1	Not Applica	ble.	·								٠٠٠ ال	

	Pagement		4040 (R	LLY SIMILA	R" TO OSHA	FORM 20		900	First A	lve. Issia, P		.06
PENTIFICATION	Chemical	pplies t Name and Mol ode 700 891	o the f locular Form Stee		products: 6G _/ 6GT	Pennwa R4	11 Code No. 0A01	Emeryo E CAS N	incy Phone Business: Other:		337-66	39
F	371101171111		alwork	ing Compo	und			Chemic	al Family Lubri	cant		**************************************
·		M	ATERIALS	OR COMPONE	NTS		% w/w	н	AZARO DA	TA (TLV, L	D50, LC5	50, etc.)
TIS TE				de (7439-	98-7)		6.0			/m ³ (As		· Vilenda in della completa an
THE BEST TS	M1C	A (12001-	-26-2)	·			10.0	TL	V 0.3 π	19 m ³ (1	lespir	able Du
INFORMATION			Ŋ			epartu	nent of Ti	anspor	tation			<u> </u>
	Boiling Poi		ND °F	Moiting Point NA		^-	Freezing Poin			Molecular W		iculated)
	Specific Gr	-L AVILY (H2O=1		I IIA	Vapor Pressur	°F	ND	°C	°F	Mixt	ure	
	ND	@		∕ °C	NA .	• (mm r.) @	" °C	۰Ę	NA NA	sity (Air=1)		
OF	Solubility	n H ₂ O le		% Volatiles by	y Volume		Evaporation f	late	<u> </u>			
	Gray 1	and Odor Paste		l ND			NA Other	Eth	er = 1	Water = 1		Butyleceta
	Flash Point			Test Method	Flammable LI	mits	<u> </u>	······································	Autoignitic	n Temperatu	14/F 110 Pi	oint
	FXTINCL	°C	°F	None	Lower	%	Upper NA	%		°C	N.	A 0
2	Water	· [] w	/ater- og	Water stream	X cos	X	Dry chemical	Aic	ohol [X Foom		Earth or send
1	Do no	ot enter	Allow fire	☐ Wat	se frothing	Do no	tuse Wear	Self C	ontaine	d Breath	ina A	
	Dust hazar		XPLOSION Sensit to sho	ck Cor	ntamination	Т•	mperature [Other		a breach	Ting A	pparacus
	X Stable		Instable	Therma		المستبناء	INSTABILITY	.				
a	Sugar	TIBILITY - A		decamp	osition	deg ()	radation		Polymeriza	ion	Conte	mination
	X scias	L 41	HAIIS	Oxidizes	L	city):						
	HAZARDO				ERMAL AND							
4 L	CONDITIO	ns to avoid	-Uxides	of Carbo	n; Sulfu	r Comp	ounds					
•	Heat		pen ames	Sparks	lgni	ition	Other	,			<u> </u>	
	Flush	BE TAKEN IF	-	L IS RELEASE	D OR SPILLE	D	(spec	Hy):				
	Dispos		Other (specify):	aterial [Neutralize	L_	Sweep or sco up and remov	op /e	Evacuati spaces.	wind, panciosed		spill
5	WASTE DIS	SPOSAL MET		ilt federal, stat	e, or local auth	orities for	proper diapos	l procedure	u.			
									•			
										[UED ON
~~	ol Applicab	ie.									REVER	SE SIDE
					•							

-	Oral (acute)	Deloie	ising proo	ULI, Itali	ind	follow Enections	arıd	precautions on	pioda	ict label and	bulletin	15. 	
		Judg	ged to	e a lo	w (order of tox	1c1	ty					
1	Dermel (acute)		~	11									
1	Eye	· · · · · · · · · · · · · · · · · · ·				-] In	nalatiun (acuta)		<u></u>	-	that the second section was the second parameter against a parameter and the second section of the section of the	
1		Irri	tant	- 									-
	Chronic, Subchrani	ic, etc.										hamma nakamatan yang sami sami	
1													
													•
_	1												
_													
													•
-												_	
1	PERMISSIBLE EXF	POSURE	LIMIT (Spe	city if TLV	/TW	A or Calling (c))				Otheri		· · · · · · · · · · · · · · · · · · ·	
	ACGIH 19				C	SHA 19	, ,						
2	INNIAIIDIN	X	Skin Eye		H	Severe Severe	[_ [X	Moderate,		<u> </u>		e transfer to toda en lador e transfer en empleo deser amendo	enter en europe
X DOTU	CORHOSIVITY		Skin			4 hrs. (DOT)		Moderate	24 brs	Mild (tran	isiont)		···-
2	SENSITIZATION		Eye			May cause blindness		لبا		. (0730)			
į	Skin		Respirator	y		Allergen		ALATION EFFI	CTS	Cyanosis		Asphyxian	•
4	LUNG EFFECTS	Specify):										Coproyaten	
	OTHER (Specify):										· · · · · · · · · · · · · · · · · · ·		
4	Repeated containing skin defatter	α· []	Other (Specify):										
ğ	Induce vomiting	[x]	Do NOT induce vomiting		\mathbf{x}	Give plenty	x	Get modical	ſ	Other			
	DERMAL Flush with soa and water		Get medic			Contaminated	LX		<u>L</u>	(specity):			
Ç	X and water EYE CONTACT		attention			remove & launder	<u> </u>	Contaminated shoes - destroy		Other (specify):			
g. č	X Flush with please 15 min	nty of wa	iter for	!	X	Get medical attention	X	Other (specify):	Eyes				
ŭ	NHALATION Remove to		if not brea give artific	tai	\Box	Give		Get medical	11011	Other	open	while flu	sning
Ī	VENTILATION RE	EQUIREN	MENTS - A		lain	exposure below per	missi	Attention	<u> </u>	(apecity):			
	Consult an ind	tal health	Apecialist		Lx	Local exhaust		Use with adequi	110			for all contantina year deficiency	int
5	X Other (specify):	Su In	uricie: gredie:	nt to m	a 1: on/	ntain level centration l	bel	ow the spe	cifi	ed Hazar	dous		
	eve (Face		HAND (G	LOV	E TYPE)	TY.	22.10.00		lyvinyi (Other		
	X Glasses	X Gogg		Polyvi	00	Neoprene	X	Natural	<u></u> ₽∞	cohol [ily- hylana	(spec	i ry) :	
	PESPIRATOR TYP	Supp) 									
	OTHER PROTECT	aif		Can or		. 1 10 1	iller ime,	· dust, mist	Cit	her pacify):			
4	Hubber boots	Apro		Other (specif	ius.		· 			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	**************************************	
	PRECAUTIONARY		ING		7):					·			
Š	Wash thorough	עי [אַ	Do not go on skin o clothing	it in eyes,	X	Do not breathe dust, vapor, mist,		Keep container	ſ	Keep awa heat, spar	y trom	Store in tigh	itly
	Do not store ne		Keep from	n contact		Emply container				open flam	es	closed conta	iners
֓֞֝֓֓֓֓֓֓֓֡֓֓֡֓֜֡֓֓֡	Compustibles	L_	materials	nbust ible	L	may contain hazardous residues		Proof equipment		Other (specify):			
	Other handling and	storage co	anditions							·····			
-	Dy Dy	ract #	vith th	is and	a1:	l chemicals	16	recommende	d as	a good	genera	al policy	to
g	To heraugh	rin, J	ir. 3~	20-85		000 54						Phone	
	"The above int	formation condition	T IS accurate	ing and use		900 First Av	veve	LINCO MALA CALAC				(215) 337-	-6634
	DISCLAIMS A	LL LIAB	ECT TO TH	E COMPLI	ETL CE 1	our knowledge, How misuse are beyond o NESS OR CONTINU THEREON, User shi	DNIQ JING	antrol, Pennwalt ACCURACY OI Mills Nimaelf N	MAKE! FTHE	NO WARHA	NTY, EL	THER EXPRESS TAINED HEREI	OR
										ii cuifant	ПАТА ТВІВИ,	ant to his mirror	•-

	EMWLT		AL SAFE			tt!	. 1	First A		lion		
-	T Pennwall	FORM 4040 (Rev. 8-81)	م ا	ennwell Co	de No	King	of Pru	ssia, l	PA 1940	06	
5	1	pplies to the	following	1				cy Phone N				
		Name and Molecular Fo								37-6639		
	4703	Name Steelskin ABO		Name Steelski		tua	01			46-2826		
Z T Z	4637	Steelskin HS		JCCC IORT	n waart	146	CAS No	• •				
	4704 Synonym	Steelakin Z					M1:	Cture Family				
es		Metalworking	Compound					cali				
		MATERIAL	LS OR COMPONE	NTS	·	% w/w	HA	ZARD DA	TA (TLV, I	LD50, LC50), etc.)	
	Calciu	ım Hydroxide (1	1305-62-0)			50-70	TUA	5 mg/m	3			
ST	Į	1 011 (8012-95	•									
	, in the La	11 011 (0012 - 92)- 1)			15-40	TWA	5 mg/m				
S H			•			ļ						
HAZAHDOUS MUREDIENTS						1					`	
1						1	1					
75				·		 	ــــــــــــــــــــــــــــــــــــــ	 .		·····		
Tig												
NF C		Not regu	lated by Do	epartment (of Tran	SDOTTST	ion					
N. N.		J		-,	•	opor cu c	2011					
	Boiling Pu	unt/Range	Meiting Point		Fic	eaing Point	 		Moleculai	Weight (Cal	Culated)	
S	NA		°F ND	°C		IA.	°C	°F	M.l.x.t	ture.		
OPT THES	NA	(4vity (H ₂ O=1)	/ °C	Vapor Pressure		,c	۰۴	Vapor Deni	ilty (Air=1)	****	
2	Solubility		% Voiatiles by			eporation Ra	1	NA NA			·	
£ 2	Insolu		N11		ŀ	A		r = 1	Water =	· 1	Butylace:	late
	1	ce and Odor			Ot	her					 -	
	Flash Poir	ite grease	Test Method	Flammable Lim	<u></u>	····		A				
	None	°C °F		NA			1	~atolytia		ture/Fire Po	unt .	
ַ בֿ	EXTINGL	JISHING MEDIA		Lower	70 Up	per	%		<u>°C</u>			°F
	Wate apra	y X fog	Water	□ co₂		Dry themical	Alco		Fuam		arth or	
	Do r	FIRE FIGHTING PRO		lor may	Do not us							
ā	UNUSUA	L FIRE AND EXPLOSE	ا ما ده تر	se frothing	Water	······································						
ľ		texplosion Sei	nsitive [Ntamination	Tampe	stature [Other					
	STABILIT	ry	CONDITIO	NS CONTRIBUT		STABILITY	(specify)	•			•	
	X Stab	Unstable	Therma decomp	position	Photo	/ Ation		Polymerizat	ion	Contai	mination	
מ		TIBILITY - Avoid cont				*************************************		····			·	
	X stro		X Strong Oxidize	rs Other								
Ē	HAZARD	OUS DECOMPOSITION	N PRODUCTS - TI	HERMAL AND C	THER (III))						
		al-Oxides of C	Carbon									
	\ r '	ONS TO AVOID	(—)							*** ***********************************		
	Heal	flames	Sparks	lgniti sourc	-01	Other (specif						
		BE TAKEN IF MATE	RIAL IS RELEAS					¬ Kesp up	wind			
۲	wate	or ine	rt material	Neutralize		p and remov	P		enclosed		ivent sprea spill	đ
	اسس ا	ose of X Other (speci	ity): Flush	to chemica	al wast	e treati	ment					
	WASTE D	ISPOSAL METHOD - C	onsult foderal, sta	te, or local autho	rities for pr	oper dispose	l procedure	·š.				
		7	andf111		٠							
		L	MINITELL							CONTIN	IUED ON SE SIDE	•
1	Not Applica	ble.	51-184			·				TAEW	JE BIUE	

Before	using ,	product, read ar	d follow directi	ions and p	recautions	on produ	uct label a	nd bulle	tins.	
Oral (acute)	1	1								
Judged to be a	10M	order of to	oxicity							
Dermai (acute)	11									
E y •				Tio	reletion (ecu	101	•			
Irritant							irrito	tion t	- 0 mucou	membranca
Chronic, Subchronic, etc.					, cause	MINOL	*111re	TEXUII (.o mucous	memoranca
										1
		NA								1
· ·										1
							•			
					•					
			•							
÷ .										•
PERMISSIBLE EXPOSUR	E LIMI	T (Specify if TLV)	TWA or Calling [c	:))			Otheri			
ACGIH 19			OSHA 19					NA		
PRITATION	Skin		Severe		Moderate	•				
	χ Еу•		Severe		Moderate		Mild (transiont)		<u> </u>
CONHOSIVITY NA	Skin		4 hrs. (DOT)			24 hrs	. (CPSC)			
SENSITIZATION	Eye		May cause bile		A. A					
Skin NA	Rest	olratorý	Allergen		ALATION E	NA	Cyano	.ala	П	
LUNG EFFECTS (Specify					effect	NA.	Cyano	1313	L Aspi	nyxiant
		NA								
OTHER (Specify):				······································			· · · · · · · · · · · · · · · · · · ·			
Repeated contact - skin defatter	Othe (Spe	cify): NA								
ITIGESTION [Do t		Give plenty	()	Get medical		Other			
vomiting		iting E	of water	<u>K</u> _	attention	<u> </u>	(specify	y):		
DERMAL Flush with soap X and water		medical ntion	Contaminated	1 7	Contaminat		Other			
EVE CONTACT			remove & laur	nder L.J	shoes - destr		(specif	y):	· · · · · · · · · · · · · · · · · · ·	
X Flush with plenty of at least 15 minutes	water fe	P' [Get medical X attention	V	Other (specify):		:s -		_	
INHALATION Remove to		ot breathing,							en while	flushing
	resp	artificial iration	Give oxygen	L	Get medica attention		Other (speci			ļ
VENTILATION REQUIR	REMENT	S - Always main								
or environmental he	aith spec	initist	Local exhaust	لسا	ventilation			[]and	ck for air con oxygen defic	taminant lency
Other (specify):	Suff:	icient to m	aintain le	vel bel	ow the	specif	ied ha:	zardou	s	
	ingre	edient (su	concentrat:	ion lin	it.					The state of the s
	nield	100.0		Market LX	I ND DEI	• ليا ﴿	Polyvinyi I cohol		~~~,,,,,,	oves are
X Severy G	oggies	Pålyvi	X Neeps	W C	Mature)	X	Poly- Ith ylene			ommended fo
PESPIRATOR TYPE - U			`						nged rep y chemic	eated conta
containeda	upplied If	gas or	cartridge vapor	X fume.	· dust, mist		Other specify):			ion level i
OTHER PROTECTIVE B	QUIPM			····		· ·		excee		10AET T
Rubber Dools	Apron	Other (specif	y):							
PRECAUTIONARY LA	BELING				·····					
Wash thoroughly after handling	∦ ∫on	not get in eyes, skin or	Do not breat		Keep cont	alner		away fron sparks, an	a 31014	in tightly
		thing ep from contact	941		,			flames		d containers
Do not store near combustibles	W.	in clothing and her combustible	Empty contain		Droof		Other			
T		et er la la	hazardous re	sidues L	equipment		(speci	(Y):		
Other handling and stora										
Minimum contact	with	this and	all chemica	als is	recomme	nded a	s a goo	d gen	eral pol:	icy to foll
red by		Date	Address						Phone	, 1011
D. McLaughlin,	Jr.	3-21-85	900 First	Ave.	King of	Pruss	ia. PA	19406	5 (215)	337-6634
"The above information of the change and the continue implifue, with a	ation is a ditions o	CEUTALO IO IND DES	tot our knowledg	e. Howeve	f, since dala.	. sa fely sta	ndards, and	d governm	ent regulation	SACE SUDJECT TO
IMPLIED, WITH A	I SPECT JABILI	TO THE COMPLI TY FOR RELIAN	ETENESS OR CO CE THEREON. L	NTINUINO	ACCURAC	Y OF TH	E INFORM	ATION C	ONTAINED	HEREIN AND
	-									

	TIME	"FSSENT	AL SAFET		FORM 20		900 First Ave. King of Prussia,	
1 ,	l	Product Name			Pennwatt Cod	• No.		
■ 2	See at	tached list			R30A-01		Emergency Phone Number(s)	
DENTIFICAT	Chemical f	Name and Molecular Fo	rmula					337-6639 946-2826
ENTE	Synonyms				······································		CAS No.(s) Mixture	
₽₽		orking Compoun	đ				Chemical Family Alkali	
			S OR COMPONEN	4T5		% w/w	HAZARD DATA (TLV,	D50 1 C50 242 1
ູດ	Power		na - 1 ann a' danna inan matanak a ta tanga inan da ka				_	LO30, LC30, 91c.)
INGREDIENT	вогах	(1303-96-4)				10-90	TWA 5 mg/m ³	
INGR			,					
INFORMATION			Not reg	ulated b	y the Dep	artment	of Transportation	
	Bolling Pol	nt/Range	Melting Point		Free	zing Point	Molecular	Weight (Calculated)
S	NA	°C '	, E ND	°C	°F	NA '	a -	xture
RTIE	Specific G	ravity (H2O=1)		Vapor Pressu			Vapor Density (Air=)	
E.B.	Solubility	(P)	/ °C	N11	@ °(poration Ra	°F NA	
PROPE	Insolut	•	,	Nil		NA	Ether = 1 Water =	
-		e and Odor			Oth			<u> </u>
	Flash Poin	ite powder	Test Method	Flammable L		or may	be added at custome	
Ţ	None	°C °F					Autoignition Tempera	
79		L F		Lower	NA % Upp		% °C	NA °F
EXPLOSION	Wate	Y Water-	X Water stream	co ₂		ry iemical	Alcohol Foam	Earth or NA
io.		FIRE FIGHTING PRO ot enter Allow ling to burn	fire Wate	er may	Do not use	NA		
X	UNUSUAL X Dust	E FIRE AND EXPLOS explosion Serial to	ON HAZARDS	tamination	Temper	·	Other (specify) Explosive 1	imit=0.5 oz/cu.i
EACHVITY DATA	STABILIT	l	CONDITION Thermal	1	UTING TO INS Photo degrada	NΑ	Pulymerization	Contamination
o L	INCOMPA Stror		X Strong		her becify):		**************************************	
hvr	1J	OUS DECOMPOSITIO	to and		- •	* *************************************		
REAC	Thermal	- Oxides of	Carbon				Use good housekee	ning to minimize
	Heat	ll flames	X Sparks	ة لـكـا		X Other (specif	y); dust buildup on c	verhead rafters
	1 ('''		RIAL IS RELEASE TO WITH SAND OUT MATERIAL	D OR SPILL	. ₩.sw	eep or scoo	pipes, etc. Keen upwind. Evacuate enclosed spaces.	Prevent spread or spill
Α×		ose of X Other	Flush t	o chemic	al waste	treatme	•	
ָרָשְׁי הַשְּׁי	WASTE D	ISPOSAL METHOD - (Consult lederal, stat	e, or local au	thorities for pro	per disposel	I procedures.	
			Landf il	1				CONTINUED ON REVERSE SIDE

Before Oral (acute)	e using product, read a	nd follow directions a	nd precautions on p	product label and bullet	ins.
	low order of to	oxicity			
Dermal (acute)	**				
Eye			inhalation (acute)	4	
Irritant			1	nor irritation	to mucous membra
Chronic, Subchronic, etc.	- 		1		to macous memora
•		NA			
					ì
	E LIMIT (Specify If TLV)	/TWA or Calling [c])		, Other:	
ACGIH 19S	see reverse	OSHA 19	see reverse	NA	
IRRITATION	, Skin	Severe	Moderate		
CORROSIVITY	X Eye Skin	4 hrs. (OOT)	X Moderate	Mild (transient)	
NA	Eye	May cause biindness	∐ ²	4 hrs. (CPSC)	
SENSITIZATION	7		INHALATION EFFEC	TS	
LUNG EFFECTS (Specify	Respiratory	Allergen	1	NA Cyanosis	Asphyxiant
	NA				
OTHER (Specify):	Other			· · · · · · · · · · · · · · · · · · ·	
L_J skin delatter	Do NOT				
Induce vomiting	TO	X Give plenty	Get medical	Other	
DERMAL THE STATE OF THE STATE O	Get medical	Contaminated		[_] (specify):	
EYE CONTACT	attention	ciothing - remove & launder	Contaminated shoes - destroy	Other (specify):	
Flush with plenty of		Qet medical X attention	Other (specify): Uo1	_	
NHALATION Remove to	if not breathing,	Give		d eyelids open	while flushing
fresh air	respiration	Oxygen	Get medical attention	Other (specify):	
Consult an industrial or environmental hea	EMENTS - Always maint	Local exhaust	Use with adequate		k for air contaminant
	<u> </u>		ventilation) lang (SXVQED deficiency
nazard	ous ingredient (s)_concentratio	erow 0.5 oz/cu on limit.	i.ft. and the sp	ecified
~ ' -	HAND (GL	OVE TYPE)	X Butyl rubber	Polyvinyi X Ott	ocity). Gloves are
Safety Go	oggies Polyvir		X Natural X	Poly. generall	y recommended f
	e only NIOSH approved e	quipment		prolonge	d repeated cont
contained air	gas or v		ter - dust,	Other of any c	nemical. entration level
OTHER PHOTECTIVE E				exceeded	
	pron Other (specify	vi: NA			
Wash thoroughly	ELING Ty Do not get in eyes,	FED 00		,	
after handling	on skin or clothing	X Do not breathe dust, vapor, mist,	Keep container closed	X Keep away from heat, sparks, and	Store in tightly closed containers
Do not store near	Keep from contact with clothing and	Emply container	C- Use explosion	open flames	Contract Contracts
combustibles	other combustible materials	may contain hazardous residues	proof equipment	Other (specify):	
Other handling and storage	conditions				
Minimum contact	with this and -	ill obomicals !			
by	Data Data	Address	s recommended	as a good gene	LOnces
D. Motaustii					
D. McLaughlin, .	Jr. 3-22-85	900 First Ave.	, King of Pru	ssia, PA 19406	(215) 337-663

Page 1

NAME	CS
THE ARM STO NO. 100 WE BEE SEE SEE SEE SEE 100 PER 100	
COPPERSHIELD 6 BT .	6661
COPPERSHIELD 6AR	4636
COPPERSHIELD GAT	6660
COPPERSHIELD 6BC	4638
COPPERSKIN M	4675
STEELSKIN 18	4642
STEELSKIN 19DD	4705
ATEELSKIN 19T	4748
STEELSKIN 19T2	4862
STEELSKIN 19T2	4878
STEELSKIN 19TV	4894
STEELSKIN 212	4728
STEELSKIN 214	4641
STEELSKIN BCA	4798
STEELSKIN EPL10	4621
STEELSKIN K10	4806
STEELSKIN SRW	4754
STEELSKIN W	4626
STEELSKIN WF4757	6309
STEELSKIN WLE	4788
STEELSKIN WRMC	4627
STEELSKIN WRMK	4743
STEELSKIN X2S	4758

į	PEMMUT	FOHN	"ESSEN 4 4040	TIALLY	SIMILA	TY D	A FORM 2	D		9	00 1	 SS: Pen Edrat	Av.				
ATTION	This a	pplies t	o the	ormula		product	ន: R38 Code	BO1 Nam		 	ergen	of Pr ocy Phon usinessi	• Numb			٠.	
FRODUCT	Code 6659 4897 4896	Redskin Redskin Redskin	15M 9M	Code 4853 4784 4753	Reds	kin 11R kin 15A kin 11M	4730 4726 4724	Red Red	= skin 91 skin 90 skin 71	CA	S No	heri .(s)) 946			
P	Synonym			le d a-	C					Ch		Family					
			etalwo ATERIA							1		opper				· · · · · · · · · · · · · · · · · · ·	
	Com					INIS		 ,	% w/w			mg/m					
ARDOUS	Copp	er Salts	s (/44	0-50-	8)				80 - 90							u) t (As	Cu)
HAZA																•	
		•															
V CHILLIANS	RQ:	Cupric				ORM-E,	NA 910	9;	Compoun	l				•			
=	Boiling Pol	_			ing Point			Fran	zing Point	 -		·	7.7				
		°C N	la c	, _	NTD	°C	°F	}	_	°C		۰۴	. 1			iculated)	
ق ہے	Specific G	avity (H2O=)	1)	- <u> </u>	Ι Ι	Vapor Presi	•	N.	<u> </u>	<u> </u>		Vapor D		lixtu	:e		
SICAL	ND	@			°C	NA	• 🔞	°C			°F		NA				
	Solubility	-		* •		y Volume		1	oration Ra	to							
		and Odor			NA			Othe		<u> </u>	Ethe	- 1	w	ater = 1		Butylect	-141-
	Blue	Powder						0	•								
4	Flash Point	l		Test A	Method	Flammable	Limits				7	Autolynii	ion Ten	nperatur	e/Fire P	oint	
		°C	°F	None	2	Lower	%	Upp	, NA		%		٥٥		NA		٥F
Z	Water	1 101	Mater-		Water	(-)	٠		·				·				<u>-</u> -
			NG PRO	ل_ا	51 / 6am	X co	2	X) Ch	mical		Alcoi foam		X F)4m		Carth or mnd	
	Do no	Do not enter Allow fire Water may Do not use															
Ĭ	UNUSUAL	FIRE AND E			ARDS		Water			····							
	I L. Jiazar	o .		silive shock		ntamination	Proproperty.	mpera		OIN	or cify):						
	STABILIT			CO	3	NE CONTRI	(COURT)		ABILITY			· · · · · · · · · · · · · · · · · · ·				·	
	INCOMPA	IBILITY - A	Jostable	ect with	decomp	Position	Ph	oto gradati	on			Olymeriz	ation		Conta	mination	
	Stron	9 🗀 5	trong	[Strong		ther specify);										
	HAZAHDO	US DECOMP	OSÍTION	PRODU	•	· • • • • • • • • • • • • • • • • • • •		///					· · · · · · · · · · · · · · · · · · ·			_	
P C	The	rmal-Ox:	ides o	f Car	bon		.o o i ne i	(1150)									
4		NS TO AVOI						·				-		·		*** *** *** *****	
	Heat		open lames		Sparks		gnition Ources	Γ	Other								
		BE TAKEN II	MATER	HAL IS	RELEAS				(specify	/):							
	Flush water	with	Absort	b with sar I materia	na [Neutraliz			ep or scoop ind remuve	•		Keep u Evacua spaces.	ipwind. Is encic) sed	D Or	event sprea spill	ıd
	Dispo	listely <u>D</u>	- (speci		Flusi	to che	mical v	vast.	e treat	men	t						
	WASTE DIS	SPOSAL MET	HOD - C	onsult fed	ieral, stat	e, or local au	thorities fo	r prop	er dapomi	proce	dures	•					
														٢	CONTI	NUED ON	
	Hot A.														REVER	SE SIDE	

C	Cermal (acute)				-			*****	T - 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-			
F	y e				· · · · · · · · · · · · · · · · · · ·	Link	alation (acute)		<u> </u>	<u>:</u>		
Ī	•						,					
C	Chronic, Subchronic, etc.					 .			····			
			•									
					• •							
					,							
												•
_	PERMISSIBLE EXPOSURE		IMIT (Specify If T) V	/T 1A/	O or Calling Ish			***************************************	Otheri	····		
•	ACGIH 19		2,000, (3,000,) (1,000,)		SHA 19				NA NA			
ī	RRITATION	Ū	Skin		Severe	X	Moderato			······································		
٠	COHHOSIVITY]	gy.		Severe		Moderate		Mild (trans	ient)		
٠	}	\mathbf{x}	Skin Eye	Ų	4 hrs. (DOT) May cause blindness			14 hrs. (CPSC)			
:	SENSITIZATION	⊕. —	:	<u></u>		INH	ALATION EFFE	CTS _				
1	Skin		Respiratory	<u>_</u>	Allargen		Narcotic effect	[Cyanosis		Asph	yxlant
ı	LUNG EFFECTS (Specify):										
•	OTHER (Specify):					·····			- · · · · · · · · · · · · · · · · · · ·			·
_	Repeated contact.		Other (Specify):									
١,	INGESTION Induce vomiting	7	Do NOT	v	Give plenty	[V]	Get medical	_	7 Other			
i	DERMAL		vomiting [עמ_	of water Contaminated		attention		j (specity):			
.	X and water		Get medical attention		ciothing - remove & launder		Contaminated shoes - destroy		Other (specify):			
1	EYE CONTACT Flush with plenty of at least 15 minutes	wa	iter for	ี้จา	Get medical	L.	Other.	yes				
-	INHALATION		If not breathing,	A	attention	X	(specify): H	old	eyelids	open	while :	flushin
	X Remove to fresh air		give artificial respiration		Give oxygen		Get medical attention	[.	Other (specify):			
	VENTILATION REQUIR Consult an Industrial	EN				וונצות	ble exposure limit			3.00		
	or environmental hea	Иń	specialist	<u>x</u>]	Local exhaust	L	ventilation		L_] and oxi	lor air cont ygen defici	ency
	(specify):		Suf f Baza	1 c	ient to main ous Ingredie	tai nr/	n level be	low 1	the speci	ified		
ľ	CYL r.		HAND (G	Ĺ	VE TYPE)	X	Bulyi	Pol	yvinyi [Olher		
١	X Safety X Go	999	Polyvi chlori		Neoprone	· 😠	Natural	- Pol	-	199661	A STATE OF	GENNAME TO SOLVE
-	PESPIRATOR TYPE - UL	٥ د	only NIOSH approved	gu	pment				*****			
	Self- contained St		Can or		rtilage Fi	ilter ime,	· dust, mist	011	ner ecify):			
ľ	OTHER PHOTECTIVE E	QL	JIPMENT									······································
	Rubber A	pro	on Other (speci									
	PRECAUTIONARY LAB	ΕL										
	X Wash thoroughly after handling	X	Do not get in eyes, on skin or clothing	[]	Do not breathe dust, vapor, mist,		Keep container closed		heat, spari	cs, and	Store	in tightly I containers
l	<u> </u>	_	Keep from contact	_	T Empty container		Usa explosion		open flam	es ·		
	Do not store near combustibles	L	other combustible materials	L	may contain hazardous residues		proof		Other (specify):			
ľ	Other handling and storag	8 C	conditions		······································							
	Minimum contact	: 1	with this and	a]	l chemicals	is	recommende	das	a good	gener	al pol:	icy to
											-	•
	D. McLaughlin,		r. 3-20-85	A	900 First Av					T	Phone	

"The above information is accurate to the pest of our knowledge. However, since data, safety standards, and government regulations are subject to thange and the conditions of handling and use, or misuse are beyond our control, Pennwalt MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR RELIANCE THE REON. User should satisfy himself that he had a little of the contained herein and





HENRY E. SANSON

775 LOUIS DRIVE

(215) 443-5220

P.O. BOX REOS

SONS, E **WARMINSTER, PA 18974-0357**

TELEX 834723

April 17, 1985

Mr. Bert Bowden Atlantic Wire Co. 1 Church St. Branford, CT 06405

Dear Mr. Bowden:

Thank you for your telephone call regarding Sanson BICKDRAW 704. A copy of the U.S. Dept. of Labor Material Safety Data Sheet describing the health and safety characteristics of our product is enclosed.

BICKDRAW 704 is a soap-type lubricant concentrate supplied in the form of a stiff, clear amber gel. The product is intended to be diluted in water to make a translucent solution that is an excellent lubricant for drawing steel and copper wire.

We submit the following confidential statement of composition for commercial production of BICKDRAW 704:

Water 42 - 45% Wt. Potassium soaps 40 - 43Mineral oil 8 Sodium petroleum sulfonate Glycolic and alcoholic coupling agents

0

We trust this information will be satisfactory for your use and will, of course, welcome any questions you may have.

HENRY E. SANSON & SONS, INC.

Richard L. Quanstrom

Assistant Vice-President

Technical Sales

RLQ/w Enclosure

U.S. DEPARTMENT OF LABOR Occupational Safety and Health Administration

Form Approved
OMS No. 44-R1367

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

Shiponding, a		i porto ciri	, (28 01 (1313; 1310; 1317)			
		SECT	ION I			
MANUFACTURER'S NAME EMERGENCY TELEPHO						
Henry E. Sanson & Sons, Inc. (215) 443-5220						
ADDRESS INumber Street, City, State, and ZIP Co 775 Louis Drive, Warminster	del p	A 1897	4_0357			
CHEMICAL NAME AND SYNONYMS			TRADE NAME AND SYNONYM	S .		
CHEMICAL FAMILY			Bickdraw 704			
Fatty mineral oil product			Alkali metal soap in oil/v	vater		
SECTION	111 -	HAZAF	DOUS INGREDIENTS		-	
PAINTS, PRESERVATIVES, & SOLVENTS	*	TLV (Units)	ALLOYS AND METALLIC COATING	s x	TLV (Units)	
PIGMENTS			BASE METAL			
CATALYST			ALLOYS			
VEHICLE			MÉTALLIC COATINGS			
SOLVENTS			FILLER METAL PLUS COAYING OR CORE FLUX			
ADDITIVES			OTHERS			
OTHERS			:			
HAZARDOUS MIXTURE	S OF	OTHER LI	QUIDS, SOLIDS, OR GASES	×	(Units)	
						
N. A N		77	dana Maharia			
. Not classiii	ed a	Hazar	dous Material			
					ļ	
			,		<u> </u>	
SE	CTIC	N III -	PHYSICAL DATA	· <u>··························</u>		
BOILING POINT (°F.) Above	T;	212 ⁰ F	SPECIFIC GRAVITY (H20-1) 60/6	0°F	0, 98	
VAPOR PRESSURE (mm Hg.)			PERCENT, VOLATILE BY VOLUME (%)			
VAPOR DENSITY (AIR=1)			EVAPORATION RATE			
SOLUBILITY IN WATER Forms a brow	vnisl	h clear	solution			
APPEARANCE AND ODOR Clear at	mbe	r paste	; slightly soapy odor			
			EXPLOSION HAZARD DATA			
	· [1]	NE AND	FLAMMAGLE LIMITS	Lei T	Uel	
FLASH POINT (Method used) (COC)	_Ab	ove 32	50F			
EXTINCTUCATING MEDIA			cal, water or CO2		**************************************	
1 001111						
SPECIAL FIRE FIGHTING PROCEDURES						
SPECIAL FIRE FIGHTING PROCEDURES In confined areas, use air s	uppl	ied bre	eathing apparatus.			
52ECIAL FIRE FIGHTING PROCEDURES		ied bre	eathing apparatus.			

SECTION V - HEALTH HAZARD DATA							
Non-hazardous material - No TLV extablished							
As a concentrate; mild skin and eye irritation.							
As water this	nned produc	t: sim			ssible drying of skin).		
Skin contact:	Wash with	RES plenty	of wate	r			
Eye contact:	flush with	water	for 15 n	nin. and seek	medical attention.		
·					1 H 第.		
	· · · · · · · · · · · · · · · · · · ·	CECTION	N. VI. D	FACTIVITY 0.4			
ABILITY	·		······································	EACTIVITY DA	TA		
0,	NSTABLE			13 10 AVOID			
IZ M) YTILIBATARICO	ABLE	х					
ZARDOUS DECOMPO		TS		- A 6 4 4	(**)、「Total Manager and Total		
AZARDOUS	MAY OCCUR		- 1	CONDITIONS TO	AVOID		
LYMERIZATION	WILL NOT O		×				
	T Wile No. 0			<u> </u>			
ASTE DISPOSAL MET	р up paste	and flue	sh resid	lue with wate	d federal laws governing		
			PECIAL	PROTECTION I	NFORMATION .		
ENTILATION L	CTION (Specify by	Non	e requi	red	SPECIAL TO SERVICE STATES		
(, M	ECHANICAL (Ge	iera!j			OTHER		
ROTECT VE GLOVES THER PROTECTIVE S	Rubber,	if desir	ed	in accordant practice.	NSafety glasses or goggles ace with Standard Safe shop		
RECAUTIONS TO BE Keep in c				CIAL PRECAU	TIONS eep from freezing.		
THER PRECAUTIONS	-						

AGE (2) RLQ 4/15/85 GPO 934-110

AMCHEM Products, Inc.

300 Brookside Avenue Ambier, PA 19002-3498



April 15, 1985

Atlantic Wire Company
1 Church Street
Branford, CT-05-90

Attention: Bert Bowden

Purchasing Manager

Dear Mr. Bowden:

Enclosed, on a confidential basis, are Material Safety Data Sheets to cover the following Amohem products:

Ridoline XP Rodine 85

Any questions you wish to have answered regarding this information should be directed to our Coordinator of Labeling & Registration, Mr. Hugh Gehman, at (215) 628-1442.

BOB BOULDEN

-1324

Thank you for your interest in our products.

Sincerely,

AMCHEM PRODUCTS DIVISION

CALL MESTA

(Mrs.) Lois McFadden Technical Services

lm

MATERIAL S ETY DATA SHEET

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-293

Revised: 8/26/83

Ł	Manufacturer's Name	Amchem Produc	ts, Inc	3.	Product Trade Name	Rodine 85		
••	Address (number, street)	300 Brookside	Avenue)		: ny ms		
	(City, state, zip code)	Ambler, PA 19	002		_ Chemical Family	Formula		
	Emergency Telephone Number:	(215) 628-100	0		Special Hazards			
	Information Supplied by:	Hugh Gehman						
	Date: 6/15/83 Title: Coordinate		g &Reg	istration	_ C	ONFIDENTIAL		
 i1.	HAZARDOUS INGREDIENTS					prietary Information	•	
	MATERIAL		*	TLV (Units)	Am	Alena Products, Inc.	%	TLV (Units)
	Substituted Triazine		40-50		Formaldehyde	*** ****	< 1	3 mg/H ³
	Thiourea or substituted th	niourea	2-4		Ortho Toluidine		< 0.1	9 mg/M3
-	Triphenyl Sulfonium Chl	loride	1-3					
11.	a. Boiling point (°F) ➤ 212 b. Vapor pressure (mmHg)	d. Solubility in wat	er (%)(complete	h. Appearance & odor: Tran	= 1)	uid; sli	ght
٧.	FIRE AND EXPLOSION HAZARD DATA			e. Special	fire fighting procedures:	None		
	a. Flash point (state method, °F)	None						
	b. Ignition temperature (°F) c. Flammable limits in air, LEL				•	None		
	d. Extinguishing media:						•	
·.	HEALTH HAZARD DATA				· ·	3 mg/M ³ base	d on for	maldehyde
	a. Physiological Properties:			6. Threshold Limit Valu				
	1. Local effects to skin:				7. Local effects to eyes:	Will burn		
	2. Genetic Hazard					· · · · · · · · · · · · · · · · · · ·		,
	3. Acute oral toxicity (LDso if available)	: Will bur	n mucoi	is membran	es			
	4. Dermal absorption (LD 50 if available)	:		 				

•		Product Name	Rodine 85	
b. Emergency and First Aid Procedures:	Special Hazards			
1. Ingestion: Drink milk of magnesia, aluminum hydroxida gel, or limewater followed by several glasses of water. Call	4. Inhalation: _	Remove from	contaminated	area to fresh air.
a doctor.		· · · · · · · · · · · · · · · · · · ·	ن خ	
2. Eye Contact: Flush immediately with copious amounts of water for at least 15 minutes. Call a doctor.			3	
3. Skin Contact: Wash with soap and water and rinse thoroughly.	5. Other Health	Data:		
				· ·
. REACTIVITY DATA				
a. Stability: Stable x Unstable Conditions to avoid:				
b. Incompatible Materials:			Į.	
c. Hazardous Decomposition Products: oxides of nitrogen and carbo	n and hydroge	n chloride		
d. Hazardous Polymerication: May occurWill not occurxConditions t	o avoid:			
I. SPILL OR LEAK PROCEDURES			,	
a. Steps to be taken for spill or leak: Transfer unspilled material to a c. b. Waste disposal methods: absorbent material and either incident			\	
II. SPECIAL PROTECTION INFORMATION				
a. Respiratory protection (Specify type) requirements:	_ d. Eye protectio	n required:	Safety goggle	23
	Exhaust			
c. Protective gloves required: Rubber e, Other required equipment:	Rubber Apro	ns .		
. SPECIAL PRECAUTIONS				
a. Precautionary label required? If yes, please attach. No. Amchem Warning St	tatement 109.	· ·		
b. Precautions to be taken in handling and storing: Store in a cool place.		.		
c. Other, autions:	· ·	,		

MATERIAL S. TY DATA SHEET

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(Approved by U.S. Department of Labor "Essentially Similar" to Form OSILA-20)

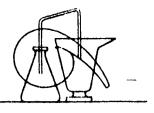
1.	Manufacturer's Name Amchem Products, Inc.			Product Trade Name Rido1	ine XP				
••	Address (number, street) 300 Brookside Avenue			Chemical Name & Synonyms					
	(City, state, zip code)Ambler, PA 19002								
	Emergency Telephone Number: (215) 628-1000			Special Hazards CONFIDENTIAL					
	Information Supplied by: Hugh Gehman								
	Date: 2/27/83 Title: Coordinator of Labeli		egistration	Proprietary Information Amchem Products, Inc.					
11.	HAZARDOUS INGREDIENTS					,			
	MATERIAL	*	TLV (Units)	MATERIAL		*	TLV (Unit		
	Sodium Hydroxide	35-45	2 mg/H ³				ļ		
	Sodium Metasilicate	55-65					<u> </u>		
						<u> </u>			
111.	PHYSICAL DATA c. Vapor density (a. Boiling point (°F) solid d. Solubility in wa			f. Per cent volatile by volume					
	્રાં કે કે કે કે કે કે કે કે કે કે કે કે કે				wder; odorless				
	b. Vapor pressure (mmHg)e. Specific gravity	(H ₂ O = 1)	30114	h. Appearance & odor:					
IV.	FIRE AND EXPLOSION HAZARD DATA		e. Special f	ire fighting procedures:None					
	a. Flash point (state method, °F) None								
	b. Ignition temperature (°F)								
	c. Flammable limits in air, LEL UEL Water d. Extinguishing media:		f. Unusual fire and explosion hazards: None						
v .	HEALTH HAZARD DATA a. Physiological Properties:			6. Threshold Limit Value (or estimat	2 mg/M ³ base e): sodium hydro				
	1. Local effects to skin:		7. Local effects to eyes: May burn						
	3. Acute oral toxicity (LDso if available): May burn	mucous	membranes						
	4. Dermal absorption (LD so if available):						· · · · · · · ·		
	5. Inhalation effects (LCso if available):				<u> </u>				

V _.		Product Name Ridoline XP
	b. Emergency and First Aid Procedures:	Special Hazards
	1. Ingestion: Dilute by drinking several glasses of water,	4. Inhalation:
•	milk, or fruit juice. Call a doctor.	
	2. Eye Contact: Flush immediately with copious amounts of	
	water for at least 15 minutes. Call a doctor.	
	3. Skin Contact: Wash with soap and water and rinse thoroughly.	
	o. o.m contactwast with soap and water and rinse thoroughly.	5. Other Health Data:

VI.	REACTIVITY DATA	
	a. Stability: Stable Unstable Conditions to avoid:	
	b. Incompatible Materials: acids	
	c. Hazardous Decomposition Products:	
<u>-</u>	d. Hazardous Polymerication: May occur Will not occur Conditions to	
VII.	SPILL OR LEAK PROCEDURES	
	a. Steps to be taken for spill or leak: Transfer unspilled material to a cl	ean polyethylene container. Neutralize spilled material
		acid to pH 7-8. Flush neutralized material to treatment approval of regulatory agency.
VIII.	SPECIAL PROTECTION INFORMATION	approval of regulatory agency.
	a. Respiratory protection (Specify type) requirements: Dust mask-NIOSH approved	d. Eye protection required: Safety Goggles
	b. Ventilation requirements (local exhaust, general dilution, special):	
	c. Protective gloves required: Rubber e. Other required equipment:	Rubber Aprons
X.	SPECIAL PRECAUTIONS	
,	a. Precautionary label required? If yes, please attach DOT Corrosive. At	mchem Warning Statements 6 and 35.
	b. Precautions to be taken in handling and storing: Store in a dry place.	

c. Other L jutions:

NUTMEG CHEMICAL COMPANY



manufacturing chemists

125 MARKET STREET - P.O. BOX 309, NEW HAVEN, CONN. 06513-0309 TEL. (203) 777-7691

April 15, 1985

Mr. Burt Bowder Atlantic Wire Company 1 Church Street Branford, Connecticut 06405

Dear Mr. Bowder:

In response to your telephone request, enclosed_please find a Material Safety Data Sheet for Magnifloc 6210, this data sheet gives you the chemical breakdown that you asked for.

If you need further information, please do not hesitate to contact us.

Very truly yours,

NUTMEG CHEMICAL COMPANY

Henry C. Payne,

Technical Services Director

HCP:ss Enclosure

cc: D. Winchell



MATERIAL SAFETY DATA

PRODUCT
IDENTIFICATION

TRADEMARK:	MAGNIFLOC® 6210 Flocculant
SYNONYMS:	Anionic polyacrylamide in water-in-oil emulsion
CHEMICAL FAMILY:	Anionic polyacrylamide copolymer
MOLECULAR FORMULA:	Mixture
MOLECULAR WGT.:	Mixture

WARNING

HARMFUL IF INHALED CAUSES SKIN BURNS MAY CAUSE EYE IRRITATION SPILLS OF THIS PRODUCT ARE VERY SLIPPERY

HAZARDOUS INGREDIENTS

COMPONENT	CAS. NO.	%	TWA/CEILING	REFERENCE	
Petroleum distillate	008002-05-9	24	500 ppm	OSHA	

NFPA HAZARD RATING

Not Established

HEALTH HAZARD INFORMATION

EFFECTS OF OVEREXPOSURE:

Acute oral (rat) and acute dermal (rabbit) LD50 values are > 10 ml/kg. Minimal eye irritation was produced in rabbit testing. When this product was tested in rabbits for skin irritation under occlusive conditions, as would be produced if the product was spilled into boots, irreversible skin damage was produced. When the product was tested under nonocclusive conditions with 24 hours of skin contact, as would occur when product was spilled on clothing, some eschar formation was observed but the overall skin irritation score was lower (2.2 moderately irritating). Aspiration of the solvent, petroleum distillate, may cause chemical pneumonitis. Overexposure to vapor may cause dizziness, drowsiness, headached and nausea.

FIRST AID:

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If MAGNIFLOC 6210 is swallowed do not induce vomiting. Give several glasses of milk or water. Administer a saline cathartic. In case of skin contact, remove contaminated clothing with out delay. Cleanse skin thoroughly with soap and water. Do not omit cleaning hair or under fingernalls if contaminated. Do not reuse clothing without laundering. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Refer to a physician if irritation persists. If vapors of MAGNIFLOC 6210 are inhaled, remove from exposure. Administer oxygen if there is difficulty in breathing. If patient is not breathing, give artificial respiration until normal breathing is restored.

EMERGENCY PHONE: 201

201/835-3100

AMERICAN CYANAMID COMPANY, WAYNE, NEW JERSEY 07470

EXPOSURE CONTROL METHODS

Where a closed system is not used, good enclosure and local exhaust ventilation should be provided to minimize exposure. Where concentrations are below the PEL, no respiratory protection is required. For spills or leaks, such protection may be necessary. Where exposures exceed PEL, use respirator approved by NIOSH for the material and level of exposure. See "GUIDE TO INDUSTRIAL RESPIRATORY PROTECTION" (NIOSH). Material causes eye and skin irritation on contact. A full facepiece respirator will provide eye and face protection. Wear the following as necessary to prevent skin contact; work parits, long sleeve work shirt, impervious gloves and impervious apron. For operations where eye or face contact can occur wear respiratory protection outlined above, (full facepiece) or chemical splash proof goggles. Provide eyewash fountain and safety shower in close proximity to points of potential exposure.

THE STATE OF THE PROPERTY OF T

FIRE AND EXPLOSION	FLASH POINT: METHOD:	> 200 F (> 93.3 C) Pensky-Martens Not Available		
HAZARD INFORMATION	FLAMMABLE LIMITS (% BY VOL):			
	AUTOIGNITION TEMP:	Not Available		
	DECOMPOSITION TEMP:	Not Available		
-	FIRE FIGHTING:	Use alcohol foam, carbon dioxide or dry chemical to extinguish fires. Water may be ineffective. Wear self-contained, positive pressure breathing apparatus and full firefighting protective clothing. See Exposure Control Methods for special protective clothing. Use water to keep containers cool.		
REACTIVITY DATA	STABILITY: CONDITIONS TO AVOID:	Stable None known		
	POLYMERIZATION: CONDITIONS TO AVOID:	Will Not Occur None known		
	INCOMPATIBLE MATERIALS:	Strong oxidizing agents. This material reacts slowly with iron, copper and aluminum, resulting in corrosion and product degradation.		
	HAZARDOUS DECOMPOSITION PRODUCTS:	Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, ammonia and/or oxides of nitrogen.		
PHYSICAL PROPERTIES	APPEARANCE AND ODOR:	White, viscous, opaque liquid; slight hydrocarbon odor		
	BOILING POINT:	Water phase boils at \sim 212 F (\sim 100 C). Initial boiling point for oil phase is \sim 347 F (\sim 175 C).		
•	MELTING POINT:	· 0 F (-18 C)		
	VAPOR PRESSURE:	Not Available		
	SPECIFIC GRAVITY:	1.0		
	VAPOR DENSITY:	Not Available		
	% VOLATILE (BY VOL):	∾70		
Ü	OCTANOL/H ₂ O PARTITION COEF.:	Not Available		
	pH:	Not Available		
	SATURATION IN AIR (BY VOL):	Not Available		
	EVAPORATION RATE:	<1 (Butyl Acetate =1)		
	SOLUBILITY IN WATER:	Appreciable		

BPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Where exposure level is not known, wear NIOSH approved positive pressure self-contained respirator. Where exposure level is known, wear NIOSH approved respirator suitable for level of exposure. In addition to the protective clothing/equipment in Exposure Control Methods, wear impervious boots. Spills of this material are very slippery. Spilled material should be absorbed onto an inert material and scooped up. The area should be thoroughly flushed with water and scrubbed to remove residue. If slipperiness remains apply more dry-sweeping compound.

WASTE DISPOSAL

Disposal must be made in accordance with applicable governmental regulations.

SPECIAL PRECAUTIONS

HANDLING AND STORAGE/OTHER:

OSHA regulations (29 CFR 106.a.14), require that the flashpoint of materials of this type be determined by the Pensky-Martens Closed Tester method. The test for this product indicates it has a flashpoint greater than 200 F (93.3 C). Another method indicates a potential for flash at approximately 154 F (67.8 C); therefore, caution should be exercised in storage and handling. Avoid storage vessels and piping constructed of iron and aluminum. Store MAGNIFLOC 6210 at temperatures between 40 F (5 C) and 90 F (30 C) to maintain stability of the emulsion.

Maum A Friedman

Marvin A. Friedman, Ph.D., Director of Toxicology and Product Safety

ATTACHMENT E



30 DEVINE STREET NORTH HAVEN, CONN. 06473 TELEPHONE (203) 248-8959

August 16, 1985

Mr. William W. Camp Camp Associates Inc. 120 Copeland Road Suite 243 Atlanta, GA 30342

Re: Delisting Petition #0189 for the Atlantic Wire Company

Dear Mr. Camp:

A sampling-analytical program was initiated for the Atlantic Wire Company according to the stipulations set forth in Robert Wilson's letter dated March 27, 1985.

Four separate sludge samples were obtained on 4/11/85, 4/25/85, 5/9/85 and 6/24/85 respectively. New, distilled water rinsed containers were used for sampling. Samples were returned to the laboratory within an hour and analytical procedures commenced at that time. Testing methods were according to EPA-600/4-79-020 "Methods for Chemical Analysis of Water and Wastes", "Standard Methods", 15th edition and "Test Methods for Evaluating Solid Waste", 1980 edition. Specific major pieces of equipment utilized during testing included a Lab-Line multi-magnestir, model no. 1278; Instrumentation Laboratory Inc. pH meter, model no. 135A and a Perkin Elmer atomic absorption unit, model no. 2380.

The Atlantic Wire sludge samples did not exhibit any characteristics of ignitability, reactivity or corrosivity. The sludge will not ignite because of its aqueous nature. It is non-reactive based on the use of sodium hydroxide in the treatment process rendering an inactive metal hydroxide. The sludge has a pH around 8.0 and consequently non-corrosive.

Aqualogic Inc. maintains a state approved public health laboratory, certification no. PH-0454-State of Connecticut.

 If you have any questions, feel at liberty to call.

Very truly yours,

Joseph F. Latka Technical Director

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JFL/re

cc: Robert S. Wilson



ATTACHMENT F

Tes	t	No.	. 2831

AME:	Atlantic Wire	SOURCE OF SAMPLE: Sludge
	1 Church Street	
	Branford, CT 06405	DATE OF COLLECTION: 4/11/85
ATTN:	Doug McConnell	COLLECTED BY: Aqualogic

4/30/85

Parameter	Resu	11.t	. Parameter	Result	
P Toxicity					
Cr	0.05	mg/l			
Ni	2.19	mg/l			
	-				
					:
1					
	· · · · · · · · · · · · · · · · · · ·				
					entire colin
			,		why not entire colo colo
Comments: The abo	ve results re e as per EPA	flect and Manual.'	lyticals performed Test Methods for E	on EP Toxicity test valuating Solid Waste	ner.

The above results reflect analyticals performed on EP Toxicity test leachate as per EPA Manual, "Test Methods for Evaluating Solid Waste" 1980 edition.

Approved, by:

Technical Director Lo∕tka.

<-Less Than</pre>

Approved Public Health Laboratory No. PH-0454-State of Connecticut

INDUSTRIAL WASTE WATER TREATMENT SYSTEMS



ENGINEERS + CHEMISTS DESIGNERS . MANUFACTURERS

М	٨	M	_	
п	м	м	_	

Atlantic Wire Company

SOURCE OF SAMPLE: Liquid Sludge

ADDRESS:

1 Church Street

Branford, CT 06405

DATE OF COLLECTION:

4/25/85

ATTN:

Bob Wilson

COLLECTED BY: Aqualogic

DATE:

5/10/85

Parameter		11.t	Parameter Result
TOC	324	mg/l	
Ni	1.58	mg/l	·
Cr	< 0.05	mg/l	

Comments:

The above results reflect analyticals performed on EP Toxicity test leachate as per EPA Manual, "Test Methods for Evaluating Solid Waste" 1980 edition.

Approved by:

oseph Falatka, Technic

Technical Director

<-Less Than</pre>

Approved Public Health Laboratory No. PH-0454-State of Connecticut

INDUSTRIAL WASTE WATER TREATMENT SYSTEMS



ENGINEERS + CHEMISTS
DESIGNERS + MANUFACTURERS

NAME:

Atlantic Wire

SOURCE OF SAMPLE:

Sludge

ADDRESS:

1 Church Street

Branford, CT 06405

DATE OF COLLECTION:

5/9/85

ATTN:

Doug McConnell

COLLECTED BY:

Aqualogic

DATE:

5/30/85

_Parameter	Res	sul.t	-Parameter	
EP Toxicity				•
Ni	1.73	mg/l		
Cr	∠0.05	mg/l	,	
тос	359	mg/l		
			·	

Comments:

The above results reflect analyticals performed on EP Toxicity test leachate as per EPA Manual, "Test Methods for Evaluating Solid Waste" 1980 edition.

Approved by:

Joseph F. Latka, Technical Director

<-Less Than

Approved Public Health Laboratory No. PH-0454-State of Connecticut

INDUSTRIAL WASTE WATER TREATMENT SYSTEMS



ENGINEERS · CHEMISTS
DESIGNERS · MANUFACTURERS

ATTACHMENT G

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NAME: Atlantic Wire

SOURCE OF SAMPLE: Sludge

ADDRESS:

1 Church Street

Branford, CT 06405

ATTN:

Doug McConnell

DATE:

4/30/85

DATE OF COLLECTION: 4/11/85

COLLECTED BY: Aqualogic

Parameter	Result	. Parameter Result
Mass Analysis		
Cr	0.520 g/kg	
Ni	0.526 g/kg	,
CNT	0.01 mg/l	
ТОС	362 mg/l	·

Comments:

1985 - 1985

<-Less Than</pre>

Approved by:

Joseph J. Lika, Technical Director

Approved Public Health Laboratory No. PH-0454-State of Connecticut

INDUSTRIAL WASTE WATER TREATMENT SYSTEMS



ENGINEERS · CHEMISTS
DESIGNERS · MANUFACTURERS